



Suzanne M. Foley, M.S., AuD., CCC-A
Doctor of Audiology

7440 N. Shadeland Avenue, Suite 115
Indianapolis, IN 46250

foleyaudiology@gmail.com

Phone: (317) 573-4445

Fax: (317) 577-7330

THERAPY ACTIVITIES TO TARGET TEMPORAL PROCESSING

Temporal processing deficits impact the brain's ability to hear timing and pitch changes in speech that can change meaning.

FUNCTIONAL IMPACT

Students with temporal processing deficits can have the following challenges:

- Difficulty understanding rapid speech or speakers with accents;
- May have a monotone voice;
- Poor rhyming skills;
- Delayed responses to auditory instructions;
- Slow processors-slow reading and writing;
- Cannot hear pitch or timing changes that add emotion such as tone of voice while being sarcastic, ironic or asking a question.
- Weak music perception

Activities should focus on two areas, Pattern Recognition first and then Prosody Training. These can improve a child's recognition and use of prosodic aspects of speech.

Temporal Pattern Recognition Training:

Purpose: To train the child to discriminate differences in, analyze, and imitate rhythmic patterns of auditory stimuli.

Focus on: differences in speed, relative loudness and rhythm.

- Use pitch of high/low sounds in activities. Utilize xylophones or piano keys using toys or devices to practice hearing high/low pitch sounds.

- Practice hearing timing changes such as “short and long” sounds such as beeps or animal sounds.
- Use a metronome on device to help clap on timing pattern and rhythm and then speed up responses to questions or activities;
- Add music or cadence to any existing therapy activity. Music can be used or a metronome to help with timing.
- Use rhyme and poetry to emphasize similar sounding timing of words can be helpful.
- Focus on words that are different due to sound/letter order such as “boaST vs BoaTS”. Use visual stimuli first and then auditory only.
- Voicing is cued by the time of onset and temporal processing deficits will affect the ability to use duration cues in language. Work on consonant and vowel contrasts at the phoneme, word and sentence level.

Prosody Training:

Purpose: To help the child learn to recognize and use prosodic aspects of speech (e.g. rhythm, stress, and intonation).

Focus on:

Syllabic stress (convict vs. convict),

Prosodic alterations within sentences

Tone of voice

Key word extraction, reading aloud-have the child listen for a key word that is

emphasized with a different stress.

- Timing of pauses in sentences can change the meaning of a sentence. For example, “they saw the snowdrift by the window” means that saw a pile of snow. “They saw the snow drift by the window” means they saw the snow move toward the window.

The difference in the stress of certain syllables in a word can change the meaning. The word "convict" can mean a noun "He is a convict" vs a verb "The judge will convict him of the offense."

- Teaching about how sarcasm and humor can change the tone of our voice to mean something different. This can be a good small group exercise.
- Use of pragmatic language techniques is helpful.
- Teaching nonverbal cues that change the meaning of speech such as eyes lifting when asking a question, recognizing facial expressions of humor and sarcasm.
- Sequencing activities and/or following multi-step directions-use the "game changer" words such as "before, after, instead of" to change the order of events.
- Read to and have student say sentences with inflection to indicate meaning.

Games and activities such as Simon, Bop It, Mad Gab, Simon game, dancing or music activities can be done at home or in therapy sessions.