Classroom Strategies for Children with Cochlear Implants

Lindsay Zombek
Denise Wray
Heather Rose
Before you get started….

- Lets make sure the child is hearing optimally!
CI Troubleshooting—should be taught to you at the beginning of the school year!

- Know your make, model and all the parts in case you have to call someone!

- Know the current program, volume and/or sensitivity so you know if they are correct. (keep a chart if helpful)

- Ask parents and professionals to show you the device when it is working optimally.

  *Ask for the specific troubleshooting guide and review before trouble arises!*

- Know your troubleshooting tools—microphone tester, system sensor, lights, beeps—each processor has different features

- Functional Listening Test—Ling 6

---

**NOCCCI**
Northeast Ohio Consortium for Children with Cochlear Implants
The Ling 6

An Auditory-only task

- Detection - I hear it
- Identification - objects or pictures
- Repeating task
- Get baseline distances and monitor
- Consider individual ear information
- Keep a daily record
Ling 6 check

• See handout for sample chart-conduct BEHIND the child---out of eyesight
MONITOR PROGRESS DAILY

- CHECK Ling 6 every day
- Monitor auditory and speech/language progress every day.
- Have a system for communicating with parents and teachers about progress, especially regression

- Slow progress or no progress can be equipment or programming problems that can be improved. Don’t wait until the 9 week juncture to say something. Every minute counts!
FACTORS WHICH CAN INFLUENCE RATE OF PROGRESS

- Consistent use
- Programming of the device
- Pre-post lingual/duration of deafness
- Age of implantation
- Emphasis on visual input vs. auditory input
- Other learning factors/disabilities
- Family support
AUDITORY TECHNIQUES

• Auditory Sandwich
  – 1st presentation is verbal to ensure auditory processing
  – 2- tactile or visual cues as necessary
  – Final cue is auditory – again to promote listening

• Wait time
  – to allow the child to process the information.
Auditory Techniques

**Acoustic Highlighting** - enhances the audibility of the spoken message

- Use duration, intensity and pitch to highlight words within phrases

Use child’s **name** to gain their attention

“Johnny….”

NOCCCI
Northeast Ohio Consortium for Children with Cochlear Implants
Auditory Techniques

• Verbally Repeat Comments and Questions Presented in Class – so they hear both the question and answer

• Auditory Spacing - chunk information
Auditory Techniques

- **Cueing** with a microphone
- **“Listen”** to gain attention

- **Pointing to your ear** to cue them to verbalize-indicate if you did not hear

  **Emphasis** is on
  - you hearing them
Classroom Auditory strategies

• **Preferential seating** - usually not front row first seat – consider the best auditory and visual situation for teacher and peers
Classroom auditory strategies

- **Use of pass around microphone** when children are reading or answering questions/ask your audiologist about ordering
Classroom Auditory Strategies

• Call on all children by their name so child with hearing loss can track the speaker

“Johnny, do you …”
Classroom Auditory Strategies

• Teach all children to find and look at the speaker (track who is talking)
Classroom Clarification Strategies

- **Ask what was said** to all children so there is a listening/comprehension expectation for everyone
  - Avoid asking, “Did you hear me?, Did you understand me?”
  - Instead, ask, “What did I say?”
Classroom Strategies

• Work on the child becoming an active listener and becoming more responsible for information/strategies--this may have to be formally practiced before this occurs.

• Keep them close when the FM/sound field is not in place (hallways, bus, cafeteria)-explain to others that “distance” away from the child matters.
Curriculum Based Goals—A Team Approach

• Send home classroom language, words to poems or songs, vocabulary, literature and themes for
  – auditory, language, speech, pragmatic and written language goals whenever possible.

  » Share state standards with SLP to tie together classroom and SLP therapy goals.
Classroom Strategies

• Don’t forget to review “the language of instruction”
• It’s tempting to only “show” them what you want but you will be in the same next time
  – make sure they understand the language you are using in the classroom
RED FLAGS

• Inconsistent use
• Resistance to wearing the device
• Equipment problems
• Difficulty with detection of sound
• Difficulty identifying the Ling 6 sounds
• Changes in behavior
• Regression of skills –auditory, language, speech
Classroom Adaptations
(Rose, 2008)

• See handout (H. Rose, 2008)
Classroom observation checklist for children with hearing loss

Name: ______________________________
Grade: ___________________________
Date: ___________________________

- Preferential seating
- Sound-field
- Pass around microphone
- Information thru speakers
- Tennis balls-carpet
- Computer patch cord
- Closed captioning
- Static addressed
- Moisture addressed
- Strong magnetic fields
- Buddy system for safety drills and field trips
- Extra batteries
- Pre-Post teaching
- Tutoring
- Speech-language therapy
- Art-music-gym-computer
- In-service with teachers

Heather Rose, MA, CCC-SLP, Cert. AVT
Cochlear Implant Precautions

see handout

• Static

• Moisture

• Magnetic Fields
How does therapy for a child with a cochlear implant look different from traditional speech therapy?

**Auditory Learning!**

Children with Cochlear Implants

- Varied amount of auditory learning experience due to length of hearing loss, amplification history, cause of hearing loss and other factors

**NOCCCI**
Northeast Ohio Consortium for Children with Cochlear Implants
Auditory Learning

- Auditory Learning involves the ability to pick up a sound, process the sound, recognize the sound, and comprehend the sound.

CHILDREN WITH NORMAL HEARING:
Learning begins prenatally (the auditory system is developed by the 20th week)
Teach Listening Skills

To be “Auditory Learners” children need to be able to detect, discriminate, identify, and comprehend spoken communication.

- **SOUND AWARENESS**: Perceive a sound; be aware a sound occurred.
- **DISCRIMINATE**: Be able to determine if two sounds are the same or different.
- **IDENTIFY**: Be able to meaningfully match a sound to its meaning.
- **COMPREHEND**: Be able to detect, discriminate, identify, and understand what is heard.

NOCCCI
Northeast Ohio Consortium for Children with Cochlear Implants
Sound Awareness

Children need to know when they ARE and when they ARE NOT hearing a sound

- Draw attention to sounds
- Create sounds for children to hear
- Ling 6 or 7 sound test
Discrimination

Same or different activities

(Remember: These steps are fluid. When a child “masters” a step, you can and may need to revisit it when the child is attempting other goals)
Identification

Children can demonstrate that they know what was said by uniquely demonstrating what they heard

- Learning to Listen sounds
- Syllable differences
Comprehension

Children use the previous steps in order to make meaning out of what they have heard.

They know the word even when used in conversation.
The SLP’s Role in Literacy

• Prevent reading problems by fostering language acquisition & emergent literacy

• Identify children at risk for literacy problems

• Provide intervention to children as well as assistance to classroom teachers & parents

(ASHA, 2001)

NOCCCI
Northeast Ohio Consortium for Children with Cochlear Implants
Phonemic Awareness Activities: Playing with Sounds

Sound Isolation Activities- Encourages children to think about sounds in words and listen for sounds at the beginning, middle, or end of a word.

Tune: "Old MacDonald Had a Farm"
Beginning sounds: What’s the sound that starts these words: Turtle, time, and teeth? (wait for response) /t/ is the sound that starts these words: turtle, time, and teeth. With a /t/, /t/ here and a /t/, /t/ there, here a /t/, there a /t/ everywhere a /t/, /t/. /t/ is the sound that starts these words turtle, time, and teeth.

Sound Matching Activities- Letter sounds are emphasized, not the letter name. Teacher says phoneme sound not the letter name.

Tune: "Jimmy Cracked Corn and I Don’t Care"
Who has a (phoneme sound) to share with us? Who has a (phoneme sound) to share with us? Who has a (phoneme sound) to share with us? It must begin with the ___ sound. Elicit responses from the children then sing: (Child’s response) is a word that starts with ____. (Child’s response) is a word that starts with _____. (Child’s response) is a word that starts with _____. (Child’s response) starts with the (phoneme) sound. (Use children’s names to motivate).

Blending Activities- Children blend isolated sounds to form words.

Game: What am I thinking of?
The teacher states that he/she is thinking of an animal (or anything theme related) then gives a clue which is the separate sound in the word making sure each sound is
articulated separately. The children blend the sounds together to guess what the teacher is thinking.

**Sound Addition or Substitution Activities**- By adding or substituting sounds in words, children begin to focus on sounds.

**Tune:** “I’ve Been Working on the Railroad” (starting with the section, “Someone’s in the Kitchen with Dinah”)

I have a song that we can sing. I have a song that we can sing. I have a song that we can sing. It goes something like this: Fe-fi-Fiddly-i-o: Fe-fi-Fiddly-i-o-o-o-o, Fe-fi-Fiddly-i-o-o-o, Now try it with the /z/ sound.

**Segmentation or Analysis Activities**- Isolating the sounds in a spoken word. One of the more difficult phonemic awareness tasks to perform. It is highly related to later success in decoding words.

**Tune:** “Twinkle, Twinkle Little Star”

This works best with words that have no more than 3 sounds (phonemes). Listen, listen to my word. Then tell me all the sounds you heard: (example: say “race” slowly) /r/ is one sound, /a/ is two, /s/ is last in race, it’s true! Thanks for listening to my words, and telling all the sounds you heard!

References


Additional Resources:


*commercially available
A Classroom Curriculum: Phonemic Awareness in Young Children

M. Adams, B. Foorman, I. Lundberg, & T. Beeler (2003), Brookes Publishing

Northeast Ohio Consortium for Children with Cochlear Implants
Sharing Books and Stories to Promote Language and Literacy

A Volume in the Emergent and Early Literacy Series
Anne van Kleeck
Plural Publishing, 2006
Resources Available:
(This list is certainly not all-inclusive!)

- The Speech Perception Instruction Curriculum and Evaluation (SPICE) – Central Institute for the Deaf www.cid.edu

- Word Associations for Syllable Perception (WASP)- Mary Koch, MA, CED www.bionicear.com

- Cottage Acquisition Scales for Listening, Language, and Speech (CASLLS)- Elizabeth Wilkes, PhD, CED, CCC-SLP www.sunshinecottage.org

- Listening Games for Littles- Dave Sindrey, M.Cl.Sc., Cert AVT www.wordplay.ca

- The Listening Room – Advanced Bionics www.hearingjourney.com

More Resources

The cochlear implant manufacturers are all committed to helping children with cochlear implants. Visit each manufacturer’s website for information especially designed for therapists and educators!

- Advanced Bionics: www.bionicear.com
  - Tools for Schools

- Cochlear Corporation: www.cochlear.com
  - Habilitation Outreach for Professionals in Education

- Med-El Corporation: www.medel.com
  - Bridge to Better Communication
Life is not measured by the number of breaths we take, but by the moments that take our breath away.