

SMALL TALK & BIG IDEAS: PROMOTING LISTENING AND SPOKEN LANGUAGE OUTCOMES FOR YOUNG CHILDREN WITH HEARING LOSS



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GREAT START ~ PENN STATE
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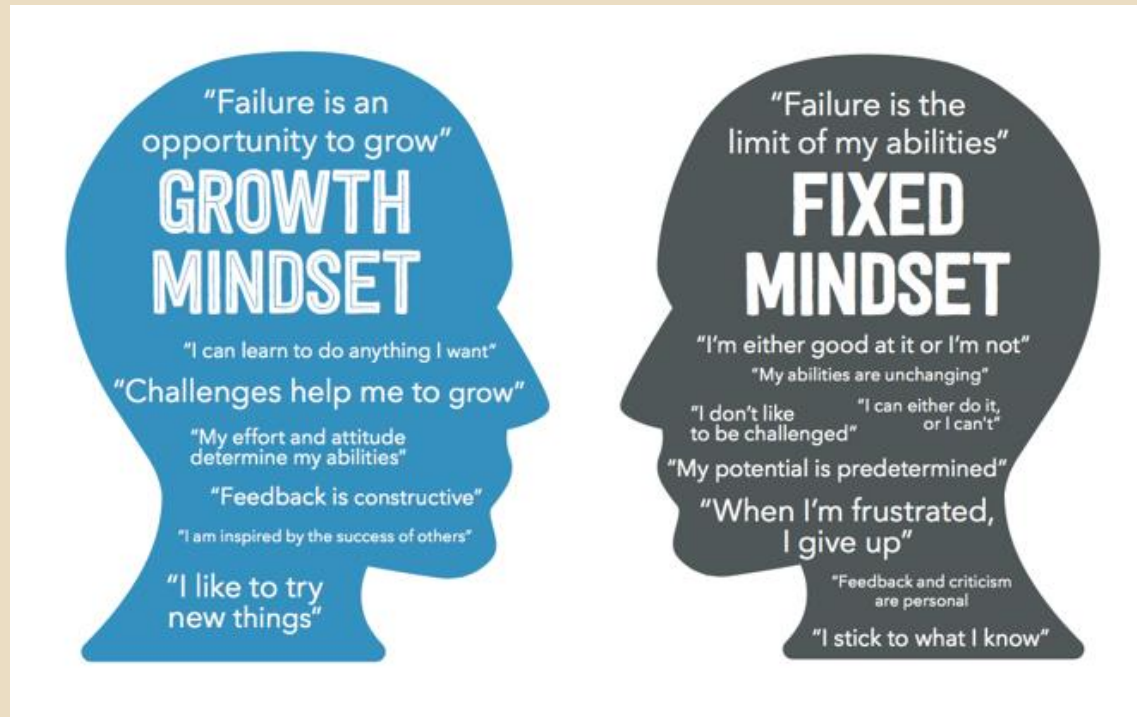
OBJECTIVES

- Explain the importance of listening and use of assistive listening devices in the development of communication development in children with hearing loss.
- Describe the expertise and major impact of families on children's growth and development and identify those coaching practices which promote family involvement in all aspects of intervention
- List evidence based strategies and developmentally appropriate activities which promote listening and spoken language through daily routines, play, and authentic interactions

OUTLINE

- How do children learn to listen and talk?
 - Brain development
 - Auditory access
- Language, Speech, and Communication Competence
 - Vocabulary
- Family-Centered Intervention
- Techniques to Promote Listening and Spoken Language (LSL)
- Special Topics
 - Routines
 - Play
 - Music
 - Books
 - Serving ALL learners
 - Professional Preparation

GROWTH MINDSET





HOW DO
CHILDREN LEARN
TO LISTEN AND
TALK?

LISTENING & AUDITORY DEVELOPMENT



We hear with the brain the ears are just the way in.

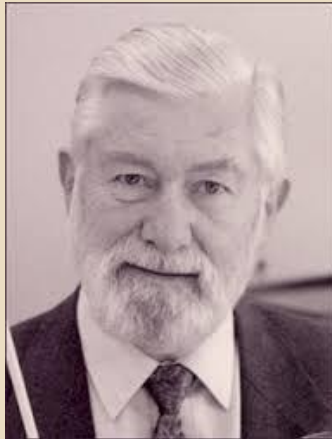
Cole & Flexer, 2008, 2011; Anderson, 2011

AUDITORY SKILL DEVELOPMENT

- Auditory skill development ≠ Auditory Training
- Support of auditory development is useful for many families, even those who may not choose (or find feasible) spoken language outcomes
- Audition follows a *developmental* trajectory
 - Thus, aim to acquire auditory skills in a developmentally synchronous manner

WISE WORDS...

Child's auditory ability develops "because emphasis is placed on listening throughout [all the child's] waking hours so that hearing becomes an integral part of [his or her] personality." (Pollack, 1970 p. 159)



"Learning to listen occurs only when children seek to extract meaning from the acoustic events surrounding them all day and every day."
(Ling, 1986, p. 24)

"For certain children with hearing loss, some structured practice on component parts may be useful as a supplement to the emphasis on audition in normal, everyday activities. With young children this structured work will normally be done through playful games, which from the child's point of view, are meaningful and enjoyable." (Cole & Flexer, 2016, p. 250)



HOWEVER...

1. Skills and abilities being worked upon are theoretical constructs; consequently, the specific exercises may be somewhat arbitrarily derived.
2. Whenever the child learns to perform any task in a structured activity or game, the **task must then be integrated into real-life situations in order to be functional for him or her.** The ideal situation is when the task or skill-practice can be integrated into a daily routine or interactive plan.

DEVELOPMENTAL SYNCHRONY

Developmental synchrony is the idea that a child develops certain skills and abilities at the precise moment her brain is “developmentally” ready to do so (Cole & Flexer, 2011).

- **The brain is “plastic.”**
- **The brain is efficient.**

(Sharma, Dorman & Kral, 2005; Sharma, Dorman & Spahr, 2002).

SETTING THE STAGE FOR LEARNING TO (AND THROUGH) LISTEN(ING)

- Child has accurate audiologic testing.
- Child's hearing devices are fit and working properly.
- You have a solid understanding of child's hearing loss and devices.
- You are committed to helping child wear devices during all waking hours.
- You take immediate action when a medical or audiologic situation arises.

HOW DOES HEARING LOSS IMPACT SPOKEN LANGUAGE DEVELOPMENT?

GROWING YOUR BABY'S HEARING BRAIN for Listening, Talking, and Reading



In Utero

Hearing begins before birth at 20 weeks gestation

Brain Development

From Day One your baby's brain is ready to learn

Days After Birth

Newborn hearing screening shortly after birth

Brain Development

Hearing allows your baby's brain access to your voice and meaningful words that help their brain grow and make connections



Before 1 Month

If your baby does not pass the newborn hearing screening, they'll need another hearing test

Brain Development

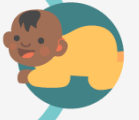
Your baby needs to hear the meaningful speech and language surrounding them so that they can learn to listen, talk, and read

Before 3 Months

Diagnose hearing loss quickly because your baby may need hearing technology to hear your voice and the sounds around them

Brain Development

As you talk to your baby, take turns making sounds, use words and talk about the world, so your baby's brain will grow and make important connections for listening and talking



Before 6 Months

If your baby has hearing loss, act quickly to enroll in early intervention. Intervention will teach you and your baby to communicate together and help your baby learn to listen and talk

Brain Development

Most children who are deaf or hard of hearing can learn to listen, talk, read, and go to school with hearing friends. The first three years are critical for growing your baby's brain for listening and talking so it's urgent that you get the right hearing devices and intervention for them



STAGES OF AUDITORY DEVELOPMENT

- **Detection** — “Was there a sound?”
- **Discrimination** — “Is this sound different from another sound?”
- **Identification/recognition** — “What is this sound?”
- **Comprehension** — “What is the meaning of this sound?”
- Intervention targets, divided into 4 Phases (Cole & Flexer 2016):
 - Phase I: Being Aware of Sound
 - Phase II: Connecting Sound with Meaning
 - Phase III: Understanding Simple Language Through Listening
 - Phase IV: Understanding Complex Language Through Listening

FOUR PHASES OF AUDITORY DEVELOPMENT

COLE & FLEXER, 2016, APPENDIX 3

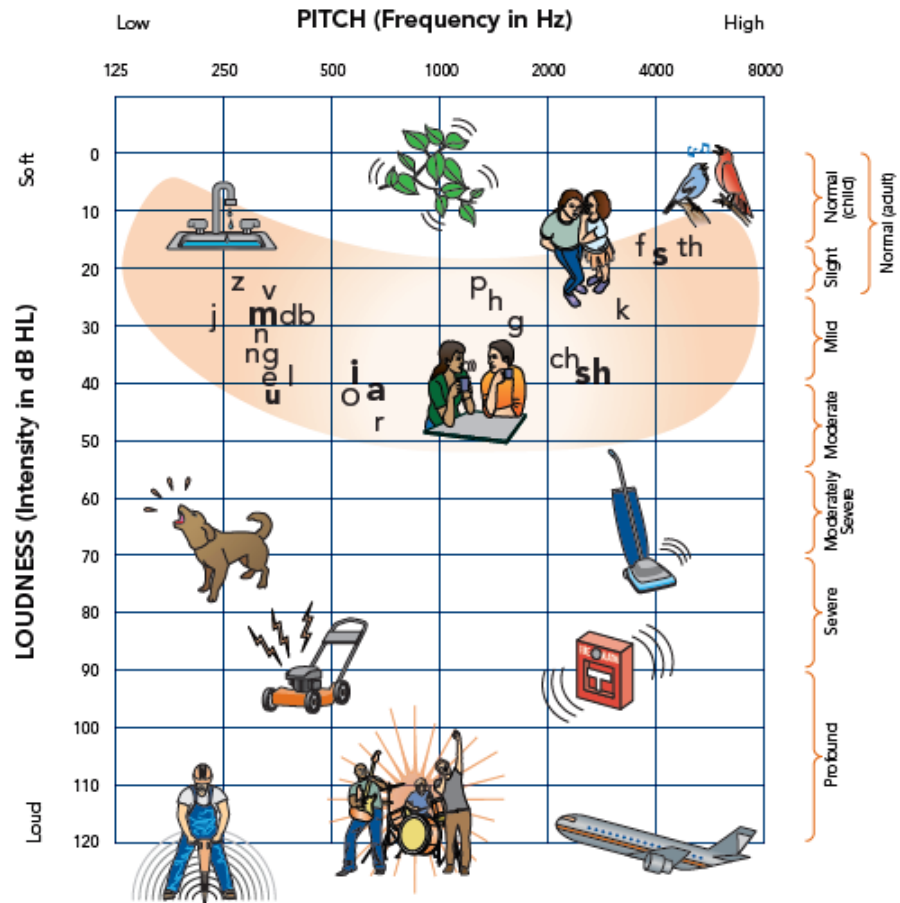
Sources:

Caleffe-Schenck, NS & Stredler-Brown, A. (1992). *Early Steps. Auditory Skills Checklist*

Cole, E. (2004). *Early Spoken Language Through Audition Checklist*, SKI*HI Manual (Vol. 1, pp 137-141)

Stredler-Brown, A & Johnson, DC (2003). *Functional Auditory Performance Indicators (FAPI)*

familiar sounds
AUDIOGRAM



Adapted from the American Academy of Audiology and Northern, J. and Downs, M. (2002). *Hearing in Children* (3rd ed.). Lippincott Williams and Wilkins, Baltimore, Maryland.

WHAT'S THE MOST IMPORTANT SOUND?

RECOMMENDED PROTOCOL FOR AUDIOLOGICAL ASSESSMENT, HEARING AID & COCHLEAR IMPLANT EVALUATION, AND FOLLOW-UP

<http://www.listeningandspokenlanguage.org/Protocol.Audiological.Assessment/#sthas.35D1Yev1.dpuf>

ASSESSING AUDITORY FUNCTIONING

Type/degree of hearing loss does NOT dictate auditory functioning!



www.cid.edu

The takeaway message: Use an auditory hierarchy to guide intervention!

FUNCTIONAL AUDITORY ASSESSMENT TOOLS FOR INFANTS & YOUNG CHILDREN

(COLE & FLEXER, 2016, TABLE 5-1, P 185-86)

- Auditory Behavior in Everyday Life (ABEL), 2002, Purdy et al.
- Children's Home Inventory for Listening Difficulties (CHILD), 2000, Anderson & Smaldino
- Children's Outcome Worksheet (COW), 2003, Whitelaw, Wynne & Williams
- Early Listening Function (ELF), 2000, Anderson
- Functional auditory performance indicators (FAPI), 2003, Stredler-Brown & Johnson
- Infant-Toddler Meaningful Auditory Integration Scale (IT-MAIS), 1997, Robbins, Renshaw, & Berry
- Listening Inventories for Education (LIFE), 1998, Anderson & Smaldino
- Little Ears (2003), Kuhn-Inacker et al
- Meaningful Auditory Integration Scale (MAIS), 1991, Robbins et al
- Parent's Evaluation of Aural/Oral Performance of Children (PEACH), 2000, Ching et al
- Preschool Screening Instrument for Targeting Education Risk (Preschool SIFTER), 1996, Anderson & Matkin
- Screening Inventory for Targeting Educational Risk (SIFTER), 1989, Anderson
- Teacher' Evaluation of Aural/Oral Performance of Children (TEACH), 2000, Ching et al

ACOUSTIC PHONETICS AS RELATED TO SPEECH PERCEPTION AND PRODUCTION

- How to understand, and help parents understand, the “big picture” premise
 - Functional use of audition
 - Some children may need direct, facilitated support (auditory skill training) to become auditory learners
 - Coach parents to lay the groundwork to emphasize listening
 - Technology provides excellent access to sound

Children with atypical hearing can become auditory learners, even learning incidentally!

The Six Ling Sounds Plus Silence

a h h h



o o o



e e e e



s h h h



s s s s



m m m



silence



MONITORING
ACCESS TO SOUND:
THE LING TEST

MODIFICATIONS TO THE LING

- Observing Nonverbal Responses
- Using Toys
- For non-English spoken languages



<http://www.ridbc.org.au/renwick/ling-consortium>

WANT MORE?





LANGUAGE, SPEECH &
COMMUNICATION
COMPETENCE

LANGUAGE

RECEPTIVE

= the language a person understands

EXPRESSIVE

= the language a person uses

SOME THOUGHTS ON VOCABULARY...

- Vocabulary is but one aspect of language.
- Children have both receptive and expressive vocabularies.
- Much vocabulary is learned incidentally. Why is that potentially problematic?
- Our vocabularies are never complete!

Owie	Boo-boo, scrape, cut, blister, wound, scratch, bruise, ?
Potty	Toilet, commode, restroom, bathroom, pot, pee, poo, urinate, #1, #2, ?
Mad	Angry, frustrated, irate, fired-up, ?
Big	Huge, enormous, humungous, ginormous, massive, gigantic, ?

INCREASING VOCABULARY

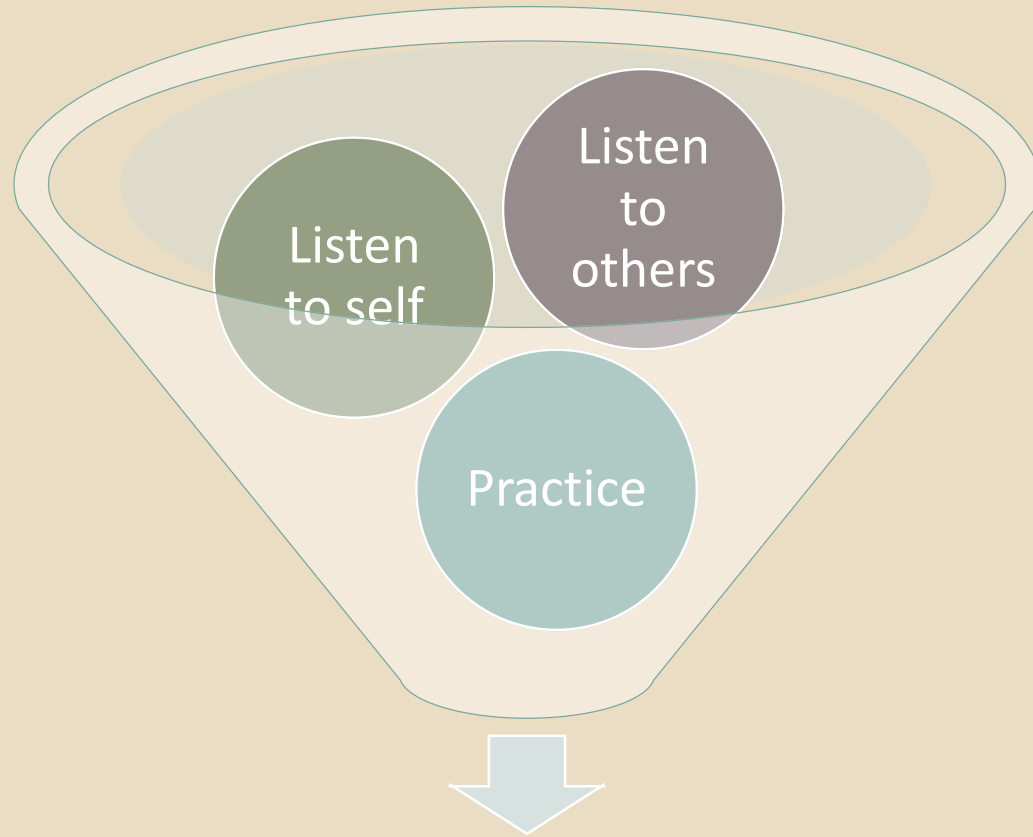
- Consider many elements of language, including: nouns, verbs, adjectives, prepositions
- Exclamations
- Acoustic Highlighting/Lowlighting
- Redundancy
- Word List

SPEECH

- Voice (breath)
- Articulation
- Suprasegmentals
 - “The dog is outside.”
 - “The dog is outside?”

RELATIONSHIP BETWEEN LANGUAGE AND SPEECH





HOW DO
CHILDREN
LEARN TO TALK?

DEVELOPMENTAL STAGES

RECEPTIVE LANGUAGE

- understands nonverbal communication using situational cues
- understands single words
- understands short phrases
- understands simple directions without situational cues
- understands entire sentences
- understands connected sentences

EXPRESSIVE LANGUAGE

- uses nonverbal communication
- uses single words
- uses short phrases
- uses sentences
- uses connected sentences about a topic

INCIDENTAL LEARNING

Children with typically developing listening skills learn a lot about the world incidentally.

Overheard talk — from adults and other children leads to experimentation with incidentally acquired language.

“Where did she hear that?”

Children with hearing loss often miss opportunities for incidental learning.



(Akhtar, Jipson, Callanan, 2001)

COMMUNICATION DEVELOPMENT

- Talk as a **social** tool
- Language develops through **interactions** of parent and child during everyday routines and play
- By age 3 child with typical hearing can seek out others to share, enjoy, request, inform or learn about the world

COMMUNICATIVE INTENT

- Communicative intent is demonstrated through: Crying, Moving, Cooing, Smiling, Pointing, Pushing, Pulling, Vocalizing, Gesturing, Making facial expressions, Body language
- 5 Categories of Communicative Intent:
 - Request for action
 - Comment
 - Acknowledgement/Imitation
 - Answer
 - Request for Information



	What Your Child Does (Category)	What She Means (Intent)
Request for Action	Child reaches out her hands.	Pick me up.
	Child hands you an empty cup.	I want more.
	Child pulls a cabinet door and looks at you.	Open it.
Comment	Child points to a picture on the wall.	Look at the horse.
	Child points to a spill on the floor.	I spilled right there.
Imitation Or Acknowledgment	You clap in praise and the child claps.	Hooray for me!
	You wave and the child waves.	Bye-bye.
	You say “No” and shake your head and the child shakes her head, too.	No.
Answer	You ask “Where’s your nose?” Child points to her nose	Here it is.
	You say “Where’s Daddy?” She looks at daddy.	There’s my dad.
	You say “Do you want to eat?” The child walks into the kitchen.	Yes, I do.
Request for Information	Child points at her foot missing a shoe.	Where’s my other shoe?
	Child points at a box, shrugs and looks at you.	What’s that?
	Child pulls you to the door with a questioning look.	Can we go?

RESPONSIVITY

- Practice:
 - Child points to her milk.
 - Child reaches for a ball.
 - Child points to a person.
 - Child hands you her sock.
 - Child is tugging on you.
 - Child is pushing something away.

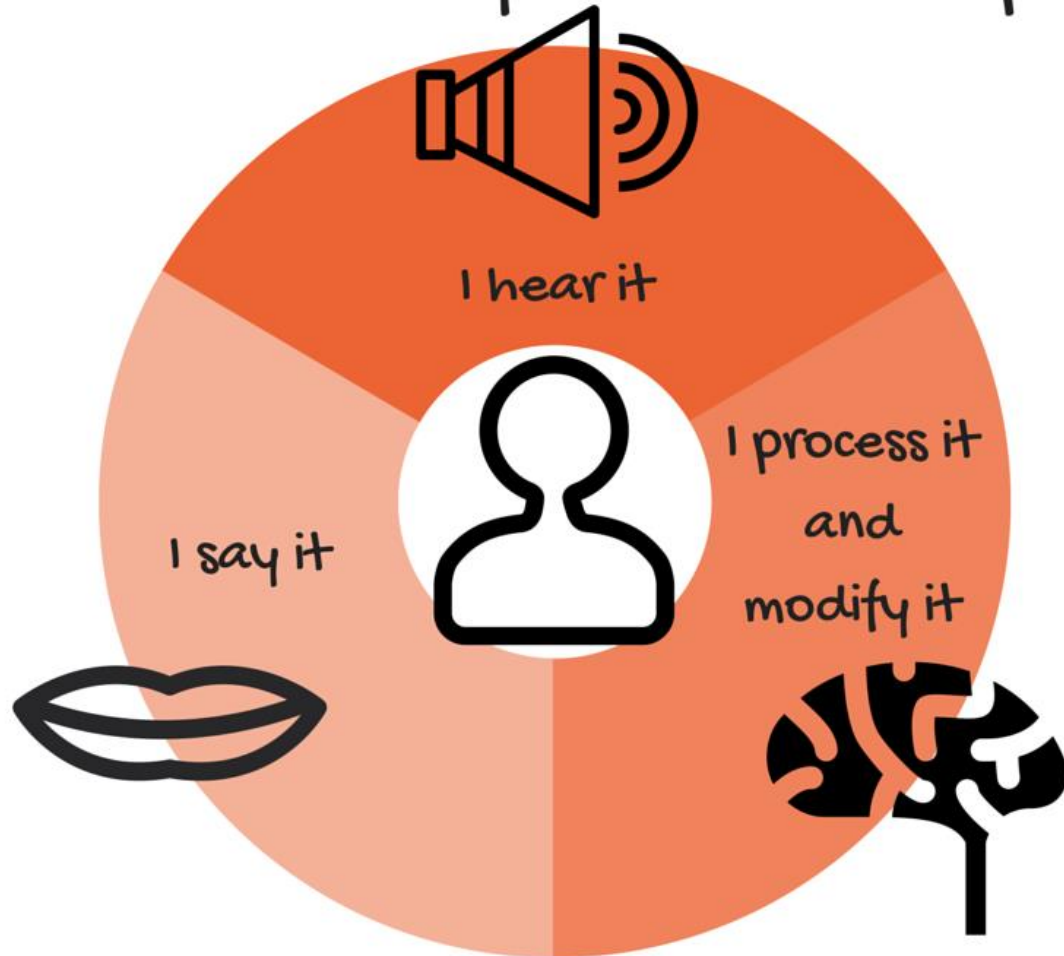
CONSIDER

- Common and natural gestures
- “I don’t understand.”
- Mis-interpreting intent
- Influence of screens



AUDITORY FEEDBACK LOOP

The Auditory Feedback Loop



EARLY VOCAL DEVELOPMENT (BABBLING)

Three Stages of
Early Vocal Development:

1. Pre-canonical,
2. Basic Canonical Syllables
3. Advanced Forms

(Ertmer, 2001)

<http://www.vocaldevelopment.com/>

LOCALIZATION

- Ability to identify where sound came from and how far away it occurred.
- Binaural hearing advantage

Why is this important?

JOINT ATTENTION

- When a child and caregiver share an experience, by looking at same object, listening or paying attention to same thing.



TURN-TAKING

- Nonverbal turns – motor activities
 - Rolling a ball
 - Beating a drum
 - Hitting spoon on high chair tray
 - Stacking blocks on tower
- Expectant Look
 - Try it!



ENCOURAGING AND IMPROVING VOCALIZATIONS

- Imitate child vocalization
- Babble, baby talk
- Pause with expectant look
- Praise attempts at communication
- Toy telephone/microphone
- Model + Imitate



TECHNIQUES TO PROMOTE LSL

TECHNIQUES

Technique #1: Continue full-time use of hearing devices (during all waking hours).

Technique #2: Create a good listening environment.

Technique #3: Create a language-rich environment.

Technique #4: Recognize and respond to communication attempts.

Technique #5: Acknowledge and understand the purpose of gestures.

Technique #6: Acknowledge and understand the importance of situational cues.

Technique #7: Talk about things important to your child.

Technique #8: Vary the types of talk; use naming and labeling, self-talk and parallel talk.

Technique #9: Avoid common traps.

Technique #10: Use modeling and imitation.

Technique #11: Prompt your child to use language.

Technique #12: Listen for and promote spontaneous language.

Technique #13: Use acoustic highlighting.

Technique #14: Understand typical communication.

Technique #15: Set expectations for communication.

TECHNIQUE #1: CONTINUE FULL-TIME USE OF HEARING DEVICES (DURING ALL WAKING HOURS)

- Tips on device retention:

- Ear Gear <https://www.gearforears.com/>

- Hanna Andersson Pilot Caps <http://www.hannaandersson.com>

- “Zamanie Bows, Headbands, & More” on Facebook and Pinterest

- <https://www.pinterest.com/alliyarizvi/zamanie-bows-headbands-and-more-cochlear-implants-/>

- Contact Alliya Rizvi 484.538.1322

TECHNIQUE #2: CREATE A GOOD LISTENING ENVIRONMENT

- Control background noise.
- Get down and get close.
- Focus on the everyday sounds in your life.

TECHNIQUE #3: CREATE A LANGUAGE-RICH ENVIRONMENT

- Talk often! Whenever you have an opportunity, especially during routines.
- Use rich but redundant talk
 - Simple
 - Detailed
 - Animated, expressive, dramatic
 - Repetition of vocabulary
 - Varied language patterns
 - Natural and accurate
- Leave Time for Taking Turns
- Value the Talk of Other Caregivers

TECHNIQUE #4: RECOGNIZE AND RESPOND TO COMMUNICATION ATTEMPTS

- What happens if you don't respond?
- Turn-Taking

TECHNIQUE #5: ACKNOWLEDGE AND UNDERSTAND THE PURPOSE OF GESTURES

- Gesture adds expression, interest, emphasis or clarification to what is being said.

TECHNIQUE #6: ACKNOWLEDGE AND UNDERSTAND THE IMPORTANCE OF SITUATIONAL CUES

- auditory sandwich



TECHNIQUE #7: TALK ABOUT THINGS IMPORTANT TO YOUR CHILD

- Caregiving
- Here and Now
- Follow child's lead
- Finding the right balance

TECHNIQUE #8: VARY THE TYPES OF TALK — USE NAMING AND LABELING, SELF-TALK AND PARALLEL TALK

- name or label objects and actions in a variety of situations
- use self-talk to describe your actions as they occur
- use parallel talk by describing your child's actions as they occur

TECHNIQUE #9: AVOID COMMON TRAPS

- talking too little or talking too much
- using only messages that are too long or too complicated for child to attend to or understand
- pausing too infrequently so child may not know when it's her turn
- speaking too fast or unclearly
- using monotone and uninteresting talk
- mumbling
- talking like a robot
- talking with inaccurate grammatical structure, such as leaving out articles like *a*, *an* and *the*
- talking with inaccurate meaning, such as calling a balloon a ball

TECHNIQUE #10: USE MODELING AND IMITATION

- **Modeling** (what you say) allows child to hear the language of the world around her, especially language that corresponds to your lives.
- **Imitation** (what child repeats from model) allows your child to practice saying what you said.

TECHNIQUE #11: PROMPT YOUR CHILD TO USE LANGUAGE

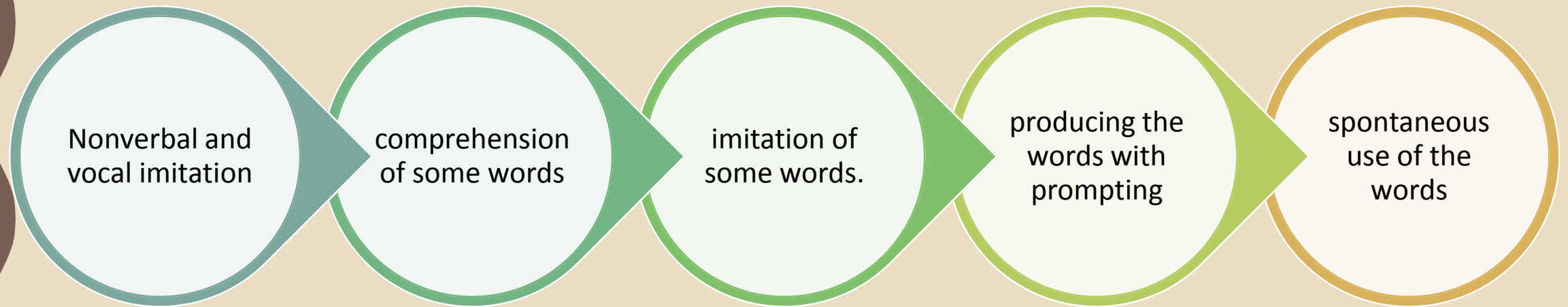
- *Nonverbal Prompts to Stimulate Talk*

- Point
- Make mouth shapes
- Expectant look
- Wait
- Withhold
- Sabotage
- Gesture

- *Verbal Prompts to Stimulate Talk*

- Request information
- Ask a question
- Comment to stimulate turn-taking
- Comment to provide correct information, more information
- Use common utterance for clarification
- Provide choices

TECHNIQUE #12: LISTEN FOR AND PROMOTE SPONTANEOUS LANGUAGE



TECHNIQUE #13: USE ACOUSTIC HIGHLIGHTING

- **Acoustic highlighting** - act of emphasizing certain sounds, words or phrases while talking. Intended to focus child's attention on the most important sounds or words

PRACTICE:

- Pitch - "*Uh-oh!* You fell down!" "The cow went '*Moo!*'"
- Volume - "Look at the *balloon!*" "Shhh! The baby's *sleeping.*"
- Stress - "Put the apples in the basket."
- Duration/Timing - "Slow down. You're going too fast." "Pee-Yew! That diaper is stinky!" "Quick, quick! We have to hurry to the door."

TECHNIQUE #14: UNDERSTAND TYPICAL COMMUNICATION

- To truly understand the communication expectations for a child, it's important to understand which communication skills are typical for children with typical hearing her same age.

TECHNIQUE #15: SET EXPECTATIONS FOR COMMUNICATION

- Increase Expectations Over Time
- Be Aware of the Ignoring Trick
- Make Language and Speech Corrections When Appropriate



SERVING ALL
LEARNERS



POVERTY

Effective practices that professionals can use to foster resilience and to maximize development of children who are deaf or hard of hearing and live in poverty include:

- Identify personal bias;
- Build relationships;
- Assess family needs;
- Provide resources and support;
- Increase awareness and advocate;
- Educate families on quality instruction;

Voss and Lenihan (2016)

www.fontbonne.edu/dhhpoverty



http://www.infanthearing.org/issue_briefs/
<http://digitalcommons.usu.edu/jehdi/vol1/iss1/7/>

CULTURAL HUMILITY (OR COMPETENCE, RESPONSIVENESS, ETC)

Tervalon, M., & Murray-Garcia, J. (1998). Cultural humility versus cultural competence: a critical distinction in defining physician training outcomes in multicultural education. *Journal of Health Care for the Poor and Underserved, 9*(2), 117–125.

<http://www.tolerance.org/>

AT A DISTANCE



- Join the learning community:

**A Practical Guide to the Use of Tele-Intervention
in Providing Early Intervention Services to Infants
and Toddlers Who Are Deaf or Hard of Hearing**

<http://infanthearing.org/ti-guide/index.html>

THE RADICAL MIDDLE

<http://radicalmiddledhh.org/>

Mission: to address the current bifurcation in the field of deaf education.

Primary Goal: to create a community of practice among researchers, teachers, parents, and the deaf community, around a common goal of philosophical partnership as it applies to communication choices and educational options for children who are deaf or hard of hearing.

THE COMMON GROUND

A JOINT PROJECT BETWEEN CEASD AND OPTION SCHOOLS

<http://www.ceasd.org/child-first/common-ground-project>

Vision Statement: All infants, children and youth who are D/HH should have the services supports and specialized providers they need to become successful as full-fledged human beings. As children and adults, they should thrive, not just survive.

Purpose: OPTION Schools and CEASD will identify areas for collaboration to help infants, children and youth who are D/HH succeed.

WANT TO LEARN MORE?

- Hearing First

<http://hearingfirst.org/>

Videos @ <http://hearingfirst.org/celebrate-lsl>

- Alexander Graham Bell Association

<http://www.agbell.org/>

- OPTIONSchools

<https://optionschools.org/>

- Auditory Verbal Therapy - Elizabeth Rosenzweig MS CCC-SLP LSLS Cert. AVT

<https://auditoryverbaltherapy.net/>

- Auditory Verbal Strategies to Build Listening and Spoken Language Skills

<http://www.auditory-verbal-mentoring.com/>



S M A L L T A L K

BRINGING LISTENING AND SPOKEN LANGUAGE
TO YOUR YOUNG CHILD WITH HEARING LOSS

ELLIE WHITE AND JENNA VOSS

GET YOUR COPY
FROM CID:

[https://cid.edu/professionals/shop
/small-talk-bringing-listening-and-
spoken-language-to-your-young-
child-with-hearing-loss/](https://cid.edu/professionals/shop/small-talk-bringing-listening-and-spoken-language-to-your-young-child-with-hearing-loss/)

THIS PRESENTATION, ALONG WITH
SELECTED REFERENCES AND
RESOURCES CAN BE FOUND AT:

www.Fontbonne.edu/DHHSsmallTalk

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