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

“Failure is an opportunity to grow”
GROWTH MINDSET
“I can learn to do anything I want”
“Challenges help me to grow”
“My effort and attitude determine my abilities”
“Feedback is constructive”
“I am inspired by the success of others”
“I like to try new things”

“Failure is the limit of my abilities”
FIXED MINDSET
“I’m either good at it or I’m not”
“My abilities are unchanging”
“I don’t like to be challenged”
“My potential is predetermined”
“When I’m frustrated, I give up”
“Feedback and criticism are personal”
“I stick to what I know”

HAVE NO FEAR OF PERFECTION YOU’LL NEVER REACH IT.

SALVADOR DALI
HOW DO CHILDREN LEARN TO LISTEN AND TALK?
LISTENING & AUDITORY DEVELOPMENT

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

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 begin 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.

Cole & Flexer, 2016, p. 250
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?
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:


WHAT'S THE MOST IMPORTANT SOUND?

AUDIOGRAM

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!

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
- Preschool Screening Instrument for Targeting Education Risk (Preschool SIFTER), 1996, Anderson & Matkin
- Screening Inventory for Targeting Educational Risk (SIFTER), 1989, Anderson
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

s i l e n c e
MODIFICATIONS TO THE LING

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

<table>
<thead>
<tr>
<th>Owie</th>
<th>Boo-boo, scrape, cut, blister, wound, scratch, bruise, ?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potty</td>
<td>Toilet, commode, restroom, bathroom, pot, pee, poo, urinate, #1, #2, ?</td>
</tr>
<tr>
<td>Mad</td>
<td>Angry, frustrated, irate, fired-up, ?</td>
</tr>
<tr>
<td>Big</td>
<td>Huge, enormous, humungous, ginormous, massive, gigantic, ?</td>
</tr>
</tbody>
</table>
INCREASING VOCABULARY

• Consider many elements of language, including: nouns, verbs, adjectives, prepositions
• Exclamations
• Acoustic Highlighting/Lowlighting
• Redundancy
• Word List
• Voice (breath)
• Articulation
• Suprasegmentals
  – “The dog is outside.”
  – “The dog is outside?”
RELATIONSHIP BETWEEN LANGUAGE AND SPEECH

- nonverbal communication or body language and gestures
- receptive language or comprehension
- expressive language or talking
- clear speech production
How do children learn to talk?

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

I hear it

I say it

I process it and modify it

Elizabeth Rosenzweig MS CCC-SLP LSLS Cert. AVT
www.AuditoryVerbalTherapy.net
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/](https://www.gearforears.com/)
  – Hanna Andersson Pilot Caps [http://www.hannaandersson.com](http://www.hannaandersson.com)
  – “Zamanie Bows, Headbands, & More” on Facebook and Pinterest
    • 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

Nonverbal and vocal imitation

Comprehension of some words

Imitation of some words

Producing the words with prompting

Spontaneous use of the words
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.”
• 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
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:

1. Identify personal bias;
2. Build relationships;
3. Assess family needs;
4. Provide resources and support;
5. Increase awareness and advocate;
6. Educate families on quality instruction;

Voss and Lenihan (2016)

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

www.fontbonne.edu/dhhpoverty
CULTURAL HUMILITY
(OR COMPETENCE, RESPONSIVENESS, ETC)


http://www.tolerance.org/
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/
GET YOUR COPY FROM CID:

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

www.Fontbonne.edu/DHHSmallTalk


