

listening
AND language
CONNECTIONS LLC


Auditory Verbal Therapy and Consultation Services

Auditory First: Planning Effective Lessons for Children with Hearing Loss

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Agenda


- Auditory First
 - Review one model of auditory development
- Prior to Planning
 - Assessment
 - Identification of targets
- Planning Makes Perfect
 - Questions to aid in ...
 - Specifying targets
 - Choosing strategies
 - Designing activities
- A Word About...
 - Planning forms



AUDITORY FIRST

Consider this Model


- Nevins and Garber (2005), Cochlear Americas
- Utility in looking at 3 parameters
 - Auditory Functions
 - Meaningful Input
 - Situational Context



Based on Erber (1982)

Auditory Functions


- **Detecting** – demonstrating the awareness of a particular sound or sounds
- **Discriminating** – making judgments as to the similarity or differences between 2 sounds
- **Patterning** – recognizing the features of rate, duration, intensity and pitch that create rhythms in sounds and speech
- **Identifying** – specifically indicating what has been heard through a motor or speech response
- **Comprehending** – demonstrating understanding of particular input through response or generation of new ideas



Nevins, Garber (2005)

Selection of Meaningful Input

- Sounds
- Words
- Phrases
- Sentences
- Conversation



Situational Contexts

- Structured Listening Tasks – specific activity designed to practice auditory skills
 - closed set tasks – all choices are available
 - bridge set – topics or categories create a larger, cognitive set
 - open set – possibilities for stimuli are endless
- Routine Activities
- Naturalistic Exchanges – goal oriented, real world conversations where ability to listen transcends environment or activity



Nevins, Garber (2005)

Building the Model

- Common sense might suggest that auditory functions would develop *first* in structured tasks and *then* move to naturalistic contexts

HOWEVER

- The power of current technology, particularly the cochlear implant, makes auditory skill development possible in more naturalistic environments



Nevins, Garber (2005)

Take Note!

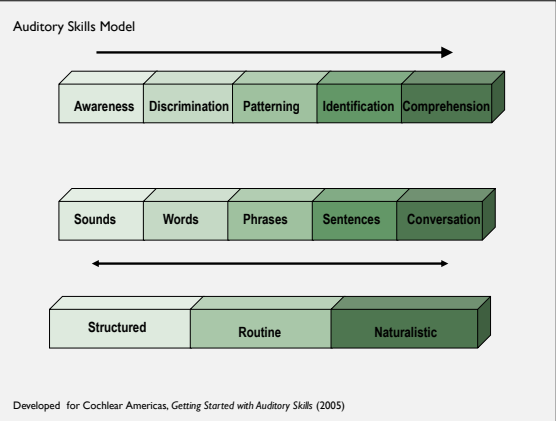
- Auditory *function* will develop from the most basic skill (detecting) to the most advanced (comprehending)

BUT...

- The input used to stimulate this development should be varied to include all elements in a variety of contexts



Nevins, Garber (2005)



PRIOR TO PLANNING

Before Planning Begins

- Assessments are completed
 - Auditory Skills
 - Language
 - Speech
 - Content areas
 - Parent/caregiver interactions/comfort levels
- Targets are established
 - Short term
 - Long term
 - Parent/caregiver goals



Establishing Targets: Auditory

- Walker, B. (2009). *Auditory Learning Guide*. Developed for FIRST YEARS (<http://firstyears.org/>) – Listening Spoken Language Development Intervention.
- Estabrooks, W. & Schwartz, R. (1995). *The ABC's of AVT*. Toronto: Arisa Publishing.
- Wilkes, E (1999). *Cottage Acquisition Scales for Listening, Language & Speech (CASLLS)*. San Antonio: Sunshine Cottage School for Deaf Children.



Establishing Targets: Language

- Bloom, L. & Lahey, M. (1978). *Language Development and Language Disorders*. New York: John Wiley & Sons.
- Gard, A., Gilman, L., & Gorman, J. (1993). *Speech & Language Developmental Chart. 2nd Edition*. Austin: Pro-Ed.
- Wilkes, E (1999). *Cottage Acquisition Scales for Listening, Language & Speech (CASLLS)*. San Antonio: Sunshine Cottage School for Deaf Children.



Establishing Targets: Speech

- Wilkes, E (1999). *Cottage Acquisition Scales for Listening, Language & Speech (CASLLS)*. San Antonio: Sunshine Cottage School for Deaf Children.
- Sander, E. (1973). When are speech sounds learned?. *Journal of Speech and Hearing Disorders*, 37, 55-63.
- Advanced Bionics (2009). *TOOLS for SCHOOLS: The Sounds of Speech*. Retrieved from <http://www.advancedbionics.com>.



Establishing Targets: Content Areas

- Preschool
 - Basic concepts and vocabulary
 - Fenson, L., Marchman, V., Thal, D., Dale, P., Reznick, S., & Bates, E. (1993). *MacArthur Communicative Development Inventories*. San Diego: Singular Publishing.
 - Lists created with the family based on words/concepts encountered at home
 - Thematic Units (community helpers, holidays, etc.)



- School Aged
 - Classroom spelling and vocabulary lists
 - Justice, L. (2009). *Words Every Second Grader Needs to Know!* Columbus: Frank Schaffer Publications.
 - Johnson, D. (2001). *Vocabulary in the Elementary and Middle School*. Boston: Allyn & Bacon.



Establishing Targets: Parent Coaching

- Building knowledge
 - Schuyler, V. & Sowers, J. (1998). *Parent-Infant Communication. 4th Edition*. Oregon: Hearing & Speech Institute Publications.
- Building Skills
 - Implementing therapy goals into daily routines
 - Strategies that will make a difference in outcomes
 - Cole, E. & Flexer, C. (2010). *Children with Hearing Loss: Developing Listening and Talking, Birth to Age 6*. San Diego: Plural Publishing.



PLANNING MAKES PERFECT

Systematic Planning

- “One cannot achieve good instruction without comprehensive planning
- Comprehensive planning requires the integration of all objectives into an activity in which the child will have the responsibility to be an active linguistic participant
- Activities need to be routine enough to be conducive to language learning yet novel enough to keep a child motivated”



Nevins (2006)

Systematic? A Planning “Matrix”

- Consider the following questions:
 - What is my *primary* target for this activity?
 - Auditory
 - Language
 - Speech
 - What behaviors/responses will show me that the child has reached the target I have set?



adapted from Garber(2009)

- What activity will lend itself to achieving the goal at hand?
- Can I integrate secondary target areas into this activity?
- How will the materials I have chosen help me to elicit the target?
- What language will I use to elicit the target?
- What strategies will I use to move the child toward the target behavior?



adapted from Garber(2009)

- Am I prepared to use diagnostic teaching to change the target as necessary?
- What strategies will I use to give the child's parent the same power to elicit the target that I have?
- How can I facilitate guide home carryover?



adapted from Garber(2009)

What is my primary target?

- Auditory, Language, Speech?
 - Do you need to specifically target auditory skill development?
 - Do you need to support language and speech activities with auditory strategies?
- Regardless, determination of the *exact* nature of your primary target is critical
 - A new goal or one that needs practice and carryover?
 - Requiring structured work or natural context?
 - A receptive goal or expressive?
 - Imitative or spontaneous?



How will I know if we're there?

- Giving particular thought to what it will look/sound like when the child has achieved your goal will serve to reinforce the specificity of your target
- Consider as well the criteria that will be used to show progress
 - What, specifically, will be marked on the planning form?
 - A percentage of correct responses?
 - Number of times/type of cueing/prompting required?
 - Degree of highlighting necessary?



What activity will take you there?

- Let the target speak to the *type* of activity chosen
 - For action verbs, choose an active game
 - For auditory sequencing, choose a scenario where order matters
 - For critical elements, choose situations where remembering is important
- Is my activity as natural as it could be?
- So long as a “creative framework” has been considered for an activity, most activities/materials can be molded to accommodate the goals that have been chosen



Creative Framework

- The context that you give to an activity to insure that it “makes sense” to the child and creates opportunities for action and communication
- In other words, develop and explain a reason for a child to play the game/complete the activity that has been selected
- Consider the following questions:
 - Why would the child want to play with these toys?
 - How will the child be allowed to play with these toys?



- Does not have to be complex*
- “Sabotage”, for example, is the basis for a creative framework
 - Completing a Puzzle
 - “Oh no, would you look at that! Someone knocked this over – will you help me fix it? I’ll tell you which piece I need and you find it, ok?”
 - Following Directions
 - “Look Jenny, I have this baby to take on a walk with us, but she has no clothes” “Let’s put on the pink pants and red shoes”



*often a game is creative framework enough, but not always

How will I integrate other targets?

- Once you’ve determined an appropriate activity for your primary target, you can fit in secondary goal areas
 - Thinking skills?
 - Vocabulary?
 - Speech?
 - Social language?



How will the materials help?

- Carefully consider materials to make sure they will challenge or support the child as appropriate
 - Are materials developmentally appropriate?
 - Have you considered the child’s learning style? Interests?
 - Are “foils” present in auditory activities?
 - Do materials *naturally* inspire the language that you are targeting?
 - e.g. photographs and past tense



What language will I use?

- The language and the behavior the child will (ideally) use is dictated by goals; the professional's language must be scripted to elicit that goal
- Modeling alone will not insure that the child will use the structure that is being targeted
- Apply the concept of "obligatory context"



What strategies will work for me?

- When auditory and other teaching strategies are used in concert with "creative framework", the reasons for a child to communicate with particular structures should be clear
- For example:
 - Goal – using imperative forms
 - Activity – playing "cooking show"
 - Strategy – repeated modeling via a complete adult turn



Auditory Strategies

- The "Listen Cue"
 - Once "listening attention" has been established through work at the awareness level, the "listen cue" can be easily used to bring attention to key words or phrases
- Auditory First
 - Describing an activity before the toys appear
 - "Listen!" rather than "Look!"



Auditory Strategies

- Pausing and Wait-time
 - Pausing before auditory input is given allows the child to attend more closely
 - Especially in the early stages of listening, children may need time after auditory input to process what has been heard
 - While repetitions are sometimes necessary, wait time provides an opportunity to find out
- Expectant Look
 - While waiting, try giving the child a look that says "it's your turn now"



Auditory Strategies

- Auditory Sandwich
 - Always present information that you want the child to attend to through the auditory channel alone *before* providing visual support
 - Allow 2-3 trials with auditory only before adding visual cues
 - If visual support is necessary, always follow with a final auditory input. "That's right! Now listen to that one more time..."



Auditory Strategies

- Manipulating Variables
 - Changing variables related to the setting, materials used, and/or to the spoken stimulus presented can affect change in a child's performance
 - When a child is not successful, modifying the task can assist the child in achieving the goal
 - When a child moves through tasks too easily, making them more difficult will move the child to a new level
 - To be best prepared, consider ways to modify an activity *before* beginning



Auditory Strategies

- Acoustic Highlighting
 - Using your voice to emphasize key words or features of words
 - Along with the “Listen Cue”, highlighting helps children to develop “listening attention” in that it brings sounds and words into prominence, telling them: “this is important”



Variable	Most Audible	→	Least Audible
Background Noise	Absence		Presence (Type and/or intensity)
Distance/Location	Close proximity to Microphone or hearing aid or cochlear implant		Increased speaker distance
Repetition	Repetition(s) required		Spoken message presented only once
Length	Short utterance		Long utterance
Complexity	Simple utterance		Complex utterance
Rate	Slow rate of utterance		Individual rates of utterances
Estabrooks (2000)			

Variable	Most Audible	→	Least Audible
Suprasegmentals	Speech with emphasis on specific pitch, intensity and/or duration cues		Little/no specific acoustic emphasis provided
Segmentals	Specific contrasting of acoustic features (place, manner and/or voicing cues)		Little or no specific acoustic emphasis provided
Target Position	End of word, phrase, sentence or whole message	Middle	Beginning of word phrase, sentence or whole message
Set	Closed		Open
Estabrooks, (2000)			

Additional Strategies

- *Modeling* strategies work well for imprinting new information and for early attempts
 - Target is used by clinician/caregiver via auditory bombardment with acoustic highlighting.
- *Prompting* strategies work best when the target language/behavior is already familiar
 - Can be in the form of questions, cues, or expectant look.
- *Turn taking* is an enhanced modeling strategy. It provides the child with (repeated) examples of how language should sound and then an opportunity to try it for himself



Am I prepared for diagnostic teaching?

- “Diagnostic teaching” refers to using each teaching activity as a means of assessing progress
- Strategies can help challenge and support, but sometimes need to be adjusted
 - i.e. have I identified “back-up” and “move forward” goals to implement as necessary?




What strategies for the parents?

- When planning, the primary consideration for home carryover should focus mostly on ways to convey effective *strategies* to the child’s family
- Simply telling the caregiver what goals are being addressed will not affect change in the home



- Ideas include
 - Planning for parental turns in game play within the session
 - Creating handouts regarding teaching strategies that were used successfully (e.g. “modeling”, “asking questions” etc.)
 - Providing scripts for a game or activity to illustrate how language is used effectively
 - Brainstorming with parent re: integrating goals into their daily routines



Target of the Week:


Kitchen	Bedroom
Getting Ready for School	Taking a Walk

concept credit: Pratibha Srinivasan

A WORD ABOUT... PLANNING FORMS


A Form That Fits

- Consider creating a personalized form or planning outside of a counter-intuitive (but required) format and then transferring information later
- The most helpful lesson plan form will be one that guides you through each of the outlined areas of planning discussed today
- Consider a format that prompts you to consider the areas that are most challenging for *you*
- In the early stages of planning writing everything out can be a true learning experience

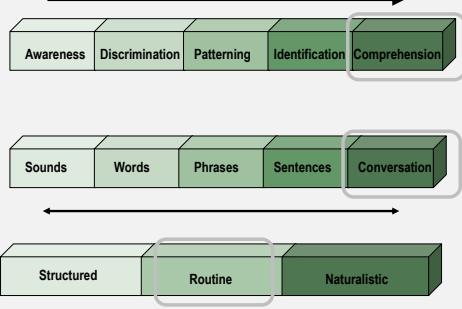


Plan with Me

- Ayla
- Chronological Age - 5;7
- Hearing Age – 3;2 Left 2;0 Right
- Primary Goal - Language
 - Ayla will respond to “why” questions
 - Ayla will use “because” either as a starter or as a conjunction in appropriate phrases or sentences in a structured or routine environment
- Auditory Level -



Auditory Skills Level - Ayla



Developed for Cochlear Americas, Getting Started with Auditory Skills (2005)

QUESTIONS AND DISCUSSION

References

- Erber, N. (1982). *Auditory Training*. Washington D.C.: AG Bell Publications
- Estabrooks, W. (2000). Auditory-Verbal Practice. *Journal of the Learning to Listen Foundation, Summer*, 6-29.
- Garber, A.S., Chesney, S. and Jones, G. (2011). Auditory First: Planning Effective Lessons for Children with Hearing Loss. Presentation for 2011 ASHA Convention, San Diego, CA.
- Garber, A.S. (2009). *Planning More Effective Lessons*. HOPE Online Library. Available at www.cochlear.com/HOPE.
- Koch, M. (1999) *Bringing Sounds to Life: Principles and Practices of Cochlear Implant Rehabilitation*. Timonium, MD: York Press .
- Nevins, M.E., & Garber, A.S. (2005). *Getting Started with Auditory Skills*. HOPE Online Library. Available at www.cochlear.com/HOPE.
- Nevins, M.E. (2006). *BEST Practices for Spoken Language Development*. Presentation for 2006 MI AGBell Conference, Ann Arbor, MI.



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Thank You!

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