

Chapter 7

Listening & Spoken Language Strategies

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Listening & Learning to Talk

Learning to talk is a major accomplishment for children. Around the world, typically developing children begin to talk at approximately the same age—with their first words emerging between 9-12 months of age. Children follow the same path to communication development—regardless of the language they are learning—as they begin to put words together to create phrases and sentences. This is the means by which thoughts and ideas are put into words and words become language (Aitchison, 2010). Children intuitively know how to crack the language code, and for most, the art of learning to talk occurs seamlessly simply by listening to the language around them.

“Cracking of the code” involves the simultaneous process of speech and language development and is dependent upon all areas of development. Most children learn to speak by listening to and imitating the sounds they



Photo courtesy of Elizabeth Gaffney & The Neri Family

hear. Babies’ speech approximations, which initially are reflexive in nature, are constantly being reinforced and refined as they interact with their parents and caregivers. This exchange and reinforcement happens in every language around the world. Speech sounds that are heard and reinforced become a part of the child’s natural

repertoire (Gopnik, Meltzoff, & Kuhl, 1999). Eventually these speech sounds are tied to meaning, and language emerges. This natural speech and language relationship continues to grow exponentially as the child grows—with the average 6- to 8-year-old learning 6 to 7 words per day and the average 8- to 12-year-old learning up to 12 new words per day (Bloom & Markson, 1998).

Language shapes thoughts, feelings, and experiences (Vygotsky, 1978). It helps us understand how we think, work, and play and influences the nature of our relationships (Denton, 2007). The desire for a social connection with parents, the need for a greater

understanding of the world, and the need for some control over their environment create the impetus for a child to develop speech and language. This motivates a child to remember and produce chunks of language that they hear from parents and caregivers. Speech (simply vocalizing in the early stages of life) and language becomes a vehicle for the child to get their needs and wants met.

What Happens When a Child is Deaf or Hard of Hearing (D/HH)?

A child who is D/HH can learn language through the same process as a child who does not have a hearing loss—through exposure to the language of their family. For a child who is D/HH and whose family has chosen listening and spoken language (LSL) as their child's mode of communication, there are three key factors that set a solid foundation for the development of spoken language competence:

Early Identification & Diagnosis

Early identification (ideally by 1 month of age) and diagnosis (by 3 months of age) of the hearing loss (JCIH, 2007).

Early Auditory Access

“Immediate and consistent auditory brain access via technology to preserve and develop neural plasticity” (Cole & Flexer, 2020, p. 17). A child must have appropriately fit hearing technology.

Early Intervention

Access to trained professionals who guide and coach parents and caregivers to be the child's primary models for communication development.

Early identification, early auditory access, and early intervention by trained professionals must work in tandem to produce the most effective listening and spoken language outcomes for a child. Each of these factors alone will not provide a child who is D/HH with the skills to be a full participant in a hearing and speaking world. However, with early diagnosis of hearing loss, the use of hearing technology, and guidance from professionals with expertise in spoken language development, a child who is D/HH can begin the natural process of listening and speaking.

Perspectives on LSL Strategies

The field of education of children who are D/HH in the United States has seen many changes over the past 150 years. The roots of what is referred to today as “LSL strategies” began in 1802 with the French physician Jean Itard, who claimed that the deaf could learn to hear words (Pollack, Goldberg, & Caleffe-Schenck, 1997). Since Itard's work in 1802, a multitude of terms have been used to describe what is now known as LSL. A few of these terms are:

1	Acoupedics
2	Unisensory Approach
3	Acoustic Method
4	Articulation Method
5	Auditory Approach
6	Auditory-Oral Approach
7	Auditory-Verbal Approach

The first American attributed with using what is now referred to as LSL was otologist Max Goldstein, who coined the term as the “acoustic method” (Duncan & Rhoades, 2010). Goldstein, who was the founder of Central Institute for the Deaf, then influenced the work of other professionals who are referred to as “pioneers” of auditory-verbal practice: Helen Beebe, Ciwa Griffiths, Doreen Pollack, and Daniel Ling. These pioneers laid the foundation for LSL at a time when children were not identified early and lacked the benefits of today's technology.

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LSL in Auditory-Verbal Education & Auditory-Verbal Therapy

As noted, access to trained professionals is key to the development of spoken language for a child who is D/HH. Professionals working to build a child's LSL skills must become proficient in many areas of their practice. The Alexander Graham (AG) Bell Academy for Listening and Spoken Language is the worldwide certifying body for Listening and Spoken Language Specialists (LSLSs). In order to achieve the designation as either a Certified LSLS Auditory-Verbal Educator (AVEd) or Auditory-Verbal Therapist (AVT), a professional engages in a rigorous learning and mentoring process, which covers a 3- to 5-year time period. A professional aspiring to become a LSLS must document 900 hours of professional experience and become competent enough in their practice to pass a written examination that covers nine domains of learning. These domains are:

1	Auditory Functioning
2	Strategies for LSL Development
3	Spoken Language Communication
4	Hearing & Hearing Technology
5	Parent Guidance Education & Support
6	Child Development
7	Emergent Literacy
8	Education
9	History, Philosophy, & Professional Issues

Knowledge, implementation, and coaching of LSL strategies currently covers 14.9% of the certification examination (AG Bell Academy, <https://bit.ly/2Mzno6g>). The knowledge and application of LSL strategies are critical skills for an aspiring LSLS professional to acquire.

Professionals are aware of and utilize LSL strategies to increase the likelihood of success for the children they serve. It is important, therefore, to continually evaluate the effectiveness of these strategies and the basis for their relevance in our field. The ultimate goal of LSL strategies is conversational competence. The practitioner uses strategies only until the child no longer needs the support of strategies to be a competent conversational partner through natural speech and language patterns. The importance of LSL strategies is critical for successful intervention. Some questions to be considered are:

- What are the strategies?
- Where did the strategies originate?
- Why are they so important to LSL outcomes for children?
- How do I know which strategy to use to give a child the greatest opportunity to meet with success?

Access to trained professionals is key to the development of spoken language for a child who is D/HH.

What Is a Strategy in LSL?

The terms “strategy” and “technique” in auditory-verbal practice and deaf education are often used together and interchangeably. Distinct definitions of these terms are:

Strategy

A plan utilized to achieve a goal. It is a particular behavior performed in a specific way with the intent of eliciting a predetermined response. A strategy has a specific order or way of implementation.

Technique

A way of presenting information or a style of teaching that may vary from therapist to therapist and teacher to teacher. A technique is the way a professional implements the strategies (Fickenscher & Gaffney, 2012). There are many techniques that professionals may utilize that are not considered strategies. Two examples of techniques are:

- Singing
- Planning sessions around daily routines

Professionals and parents use strategies, such as acoustic highlighting or auditory closure, while singing with a child. In this scenario, singing is considered a technique, while auditory closure and acoustic highlighting are strategies. Sessions may involve the daily routine of getting dressed—where a parent can add their own ideas (technique)—with an emphasis on wait time and joint attention (strategies). This particular chapter addresses the strategies that professionals use to develop LSL skills.

LSL Strategies: Where to Start

While the history of LSL is well documented, tracking the history of the use of strategies in LSL is quite a different story. Many instances in early literature refer to teaching strategies or methods of teaching (Pollack, Goldberg, & Caleffe-Schenck, 1997), but literature reviews do not lead to one comprehensive document outlining the definition, use of, or effectiveness of these strategies. There are often different names for the same strategy (e.g., auditory sandwich vs. listening sandwich; focused auditory stimulus vs. auditory bombardment), and a clear lack of which strategies have the greatest impact on the development of auditory, speech, and spoken language skills.

While there is a lack of rigorous, evidence-based research on the effectiveness of strategies in regard to children who are D/HH, the effectiveness of strategies has been driven by evidentiary practice and informed clinical experience and handed down through coaching, mentoring, and training professionals who work with children who are D/HH and wish to develop spoken language.

There is, however, research that the use of specific strategies support the building of healthy brain architecture for the young child. The Center of the Developing Child at Harvard University highlights the concept of serve and return and the significance of responsive caregiving to the overall development of healthy brain architecture. Serve and return interactions are all about the interactions that occur between a baby and his or her caregiver. The Center on the Developing Child goes on to break these important serve and return

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interactions into five specific steps—or strategies—that when used consistently actually help to grow a child’s brain! The good news for LSL practitioners is that these five steps are also strategies that have been considered as cornerstones of LSL practice. Professionals following a LSL approach are uniquely poised to coach and guide parents in the use of these impactful practices.

The five steps outlined by the Developing Child at Harvard are:

1	Notice the serve and share the child’s focus of attention.
2	Return the serve by supporting and encouraging.
3	Give it a name.
4	Take turns and wait . . . keep the interactions going back and forth.
5	Practice endings and beginnings.

These strategies are discussed in detail on their website (<https://bit.ly/3cSffEK>), and the reader is encouraged to investigate this website and the wealth of research available there. Additional links are provided in the *Resource* section of this chapter. There are multiple articles, white papers, and easy-to-follow videos to support learning. The concepts the multidisciplinary team at the Center of the Developing Child present are all supported by research that compels anyone interested in the welfare of a child to not only read thoroughly but to follow the practical recommendations for maximizing strong brain architecture.

Beginning practitioners may want to first become familiar with these strategies as they are evidenced-based and then add additional LSL strategies as their knowledge grows. *Appendix A and B* are worksheets to organize thoughts and create a crosswalk between the *5 Steps of Serve & Return and LSL Strategies*.

There are multiple resources for a more indepth study of LSL strategies, as well as additional resources at the end of this chapter. One of the challenges of discussing LSL strategies is how to group or categorize the strategies for ease of learning.

Strategies are often divided into three categories based on skills the child needs to develop:

1	Auditory Skills
2	Speech Skills
3	Language Skills

A compilation of LSL strategies was written by Fickenscher and Gaffney (2012) with detailed explanations and discussions. *Table 1* is recreated from that document with definitions and additional names LSL strategies may be called. The strategies introduced in this chapter reflect the literature and experience of professionals and mentors. There are other strategies used in the field of LSL development that are not presented in this chapter that may be used in practice or may be similar to the strategies identified but referred to by another term.

Planning for Success

Strategies are chosen based on the desired outcomes for a child. In order for appropriate goals and outcomes to be determined, a professional must evaluate a child’s current levels of functioning (CLF) in all areas of learning (Dickson & Caraway, 2012). CLF are determined through formal and informal assessments, observations of a child, discussion with parents and other members of a child’s Individualized Family Service Plan (IFSP) or Individualized Education Program (IEP). The areas covered in the CLF may include:

The age a child was amplified.
The age when early intervention services began.
Level of auditory skill development.
Receptive language development.
Expressive language development.
Cognitive development.
Social development.
Motor (fine and gross) development.
Self-help (adaptive) skills.

Through continuous progress monitoring and data collection, a professional knows a child’s current levels at any given time, as well as the next targets on their learning trajectory across all domains. A link to a sample CLF form can be found in *Resources for Further Learning on Strategies* at the end of this chapter.

When planning a parent session, individual or group lesson, a professional must consider the long-term goal and short-term objectives and choose activities that are developmentally appropriate for the child based on CLF.

Once a target is identified, the professional then asks . . .

“What strategy will help achieve the desired outcome for this child or student?”

Planning Into Practice

There are multiple theories and frameworks to consider when planning a lesson or intervention session. Generally there are two approaches to consider—directive (didactic) or naturalistic (Law, 1997). A professional may also use a combination of the two. Along the continuum of birth through secondary education, the professional strives to increase their ability to be family centered. No matter the age of the child or young adult, outcomes will be greatest with increased family involvement and support. The planning and implementation of sessions, however, will look different depending on the age of the child and location of services.

In intervention sessions or lessons that are more directive, the professional uses a stimulus-response paradigm by initiating the interaction or stimulus to produce the intended target. A directive approach provides a controlled setting or controlled activity that is often more typical of a school or therapy setting. Directive approach may also be referred to as explicit instruction.

In order for appropriate goals and outcomes to be determined, a professional must evaluate a child’s current levels of functioning in all areas of learning.

Table 1
LSL Strategies & Commonly Accepted Definitions for Each Strategy

LSL Strategy (Also Known As)	Definition & Potential Target Goals
Auditory Bombardment (<i>Focused Auditory Stimulation</i>)	The provision of numerous opportunities for a child to hear the target phoneme, sound, or language (Dickson, 2010). <i>Target Goals: Attention to sound, awareness of sound, integration of listening into a child's personality.</i>
Auditory Closure (<i>Pause, Prompt</i>)	A speaker begins a song, rhyme, or sentence and then stops talking in order to encourage the child to fill in a verbal response. <i>Target Goals: Attention to speaker, response from a child, turn-taking skills, child's use of spontaneous language, expressive language expansion.</i>
Acoustic Highlighting (<i>Elongate, Low Light, Pause, Repetition of Specific Sound, Whisper</i>)	Added vocal emphasis is placed on an identified target. A target can consist of important sounds, words, parts of phrases, or grammatical structures in a sentence. <i>Target Goals: Attention to auditory signal and/or speaker, responses from child, turn-taking skills, expressive language.</i>
Ask, "What Did You Hear?"	When a child gives an incorrect or inappropriate response, no response, or experiences a communication breakdown, the adult can ask, "What did you hear?" to prompt the child to give back the part of the message that was heard and attempt to repair the breakdown. <i>Target Goals: Attention to auditory signal and/or speaker, confidence in listening skills, repair strategies for communication breakdowns.</i>
Auditory Sandwich (<i>Auditory First, Listening Sandwich</i>)	Information is presented through listening before the introduction of visual or other support information is given to a child. When visual information is needed to assist in comprehension, the information is then put back into the auditory-only presentation. The auditory sandwich is also referred to as the "listening sandwich." <i>Target Goals: Suprasegmentals of speech, attention to auditory input and the speaker, ability to process language through listening.</i>
Expansion (<i>Add Something, Elaborate, Expiation, Extension, Scaffold</i>)	An adult repeats back what the child has said and either adds something new or corrects syntax or grammatical structure. <i>Target Goals: Length of utterances, degree of syntactic or semantic correctness, complexity of responses from child, auditory feedback loop.</i>
Expectant Look (<i>Sometimes Used in Conjunction With Lean In, Prompt</i>)	A nonverbal signal is given to a child to indicate a response is expected. <i>Target Goals: Attention to speaker, response from child, turn-taking skills, expressive language expansion.</i>
Joint Attention (<i>Follow the Child's Lead, Shared Focus</i>)	The ability for two or more people to share a common focus (Woods & Wetherby, 2008). <i>Target Goals: Attention to auditory input, build social cognition (Mundy & Newell, 2007), assist development of theory of mind (Gavrilov et al., 2012), increase language development (Brooks & Meltzoff, 2005).</i>
Model Language & Speech (<i>Narrate, Parallel Talk, Recast, Rephrase, Self-Talk, Simplify</i>)	An adult speaks clearly at all times, uses the correct grammar, and gives appropriate and meaningful language in context. <i>Target Goals: Neural connections in the brain (Suskind, 2015), auditory feedback loop, receptive language skills, expressive language skills, appropriate grammatical rules.</i>
Motherese (<i>Parentese, Child-Directed Language</i>)	The singsong voice that parents naturally use when speaking to very young babies. Motherese is also referred to as parentese, baby talk, or child-directed speech. <i>Target Goals: Attention to speaker, repertoire of vowel sounds, cooing, response from child, social-emotional development (Bergeson-Dana, 2012), turn-taking skills.</i>

Table 1
(continued)

LSL Strategy (Also Known As)	Definition & Potential Target Goals
Open-Ended Questions	Questions are asked that require more than a yes/no or one word response (Bond & Wasik, 2009). <i>Target Goals:</i> Access to auditory information, length of utterance, turn-taking during discussion.
Optimal Positioning (Awareness of “Better Ear,” Distance From the Speaker, Get on Child’s Ear Level, Listening Bubble, Position for Maximized Auditory Input, Speak Within Earshot)	Proper position and distance between the speaker and the listener that enables the child with hearing loss to have the most optimal access to spoken language through audition. <i>Target Goals:</i> Access to auditory information, auditory attention to speaker, responses from child, access to subtle conversational cues, faint or distant speech.
Parallel Talk (Immitate Child’s Vocalizations, Mirror Child’s Vocalizations, Narrate)	An adult talks to the child about what the child does, hears, or sees at any particular moment in time. <i>Target Goals:</i> Parents’ ability to interact with child, receptive language skills, expressive language skills, ability to use grammatically correct structures, conversational skills (Raver et al., 2012).
Prompt (Auditory Closure, Create a Need for the Child to Talk, Expectant Look, Lean In)	The use of a verbal, visual, or physical indicator that increases the likelihood of a correct response from a child. (For additional information on this LSL strategy, see Chapter 9 by Ellie White.)
Repetition	An indirect or informal language stimulation technique where a targeted sound, word, phrase, or sentence is said more than one time (Weybright, 1985). <i>Target Goals:</i> Auditory feedback loop, receptive language skills, clarification, expressive language, knowledge of grammatical structures.
Sabotage (Create the Unexpected, False Misunderstanding)	Creation of an unusual or unexpected situation with familiar items or routines that is contrary to the child’s expectation or understanding (Winkelkotter & Srinivasan, 2012). <i>Target Goals:</i> Joint attention, attention to auditory information, length of utterance, expressive language skills.
Self-Talk (Narrate)	An adult talks to the child about what the adult sees, does, or hears at any particular moment in time. <i>Target Goals:</i> Parents’ ability to interact with child, receptive language skills, expressive language skills, ability to use grammatically correct structures, conversational skills (Raver et al., 2012).
Take Turns (Serve & Return)	Adults learn to encourage a back-and-forth volley between themselves and the child. <i>Target Goals:</i> Auditory attention to speaker, response from child, conversational competency, expressive language skills.
Wait Time (Pause)	The pause used between an adult’s interaction with a child and the child’s expected response that allows the child time to process the auditory information and formulate a response (Dickson, 2010). <i>Target Goals:</i> Length of response, speaker’s confidence, likelihood of response from a child, communicative intent, turn-taking skills (Cole & Flexer, 2011).
Whisper (An Element of Acoustic Highlighting)	This form of acoustic highlighting is used with voiceless consonants to give acoustic saliency to the targeted consonant. <i>Target Goals:</i> Auditory attention, auditory accessibility, auditory feedback loop.

In early intervention, professionals tend to use a more naturalistic approach. In an intervention session that is more naturalistic, the professional plans to use a given strategy with a naturally occurring activity. In a naturalistic approach, the professional takes advantage of the daily opportunities that occur in a child's life by participating in or simulating the child's daily learning environment. This approach is often used by professionals when working collaboratively with parents in a coaching relationship. When deciding between a directive or naturalistic approach, one is not exclusive of the other but rather part of a continuum to reach the intended target or outcome.

The reader is encouraged to read and reflect on *Chapter 8* by Stredler-Brown and Voss, which describes the following components of a Family-Centered Early Intervention (FCEI) session. One way to relate this process to the use of strategies is shown in *Table 2*.

Table 2
FCEI Session & Possible Questions

Components of a Family-Centered Early Intervention Session	Question to Ask Caregiver Based on Identified Goal
Reconnect & Review	<ul style="list-style-type: none"> • What strategy did you practice this week? • How did that go? • What was your child's response when you used the strategy?
Address Priorities	<ul style="list-style-type: none"> • Would you like to practice that strategy more or move on to a different one?
Show the Craft	<ul style="list-style-type: none"> • Model how to implement strategy or ask caregiver to model how he/she used the strategy.
Assess & Evaluate	<ul style="list-style-type: none"> • How did your child respond when I used that strategy? • Should we try it again?
Reflect on the Visit	<ul style="list-style-type: none"> • What would you like to focus on for this week? • What strategies do you think went well during this visit?

Given the significant language needs of children who are D/HH, either the *directive* or the *naturalistic* intervention approach becomes the framework for achieving the desired goal. It is the active process of executing the session or lesson that calls for the use of specific strategies in order to meet the intended goal or outcome (see *Table 3*).

It is important to recognize that no one specific intervention approach is best for all young children.

It is important to recognize that no one specific intervention approach is best for all young children. When selecting an intervention approach, it is important for the professional providing the intervention to consider the individual characteristic of the child, the child's stage of language development, and the setting in which the intervention takes place. When the professional is working in the home with the parent, it is imperative that the parent's learning style is taken into consideration and that the intervention is tailored around what activities the parent will follow through on in between sessions. It is important to consider the child's conversational skills and verbal competence when determining whether to use a more directive or naturalistic intervention. Whatever the approach taken, the professional should plan for several possible responses from the child in order to be better prepared for selecting the appropriate strategy to reach the intended target.

Selection & Application of Strategies

LSL strategies are used across all settings that are part of a child's daily life. Strategies are employed in meaningful ways in daily routines and activities by parents, caregivers, teachers (those in specialized as well as inclusive settings), audiologists, speech-language pathologists, and any other professional and hopefully family member with whom the child comes in contact. While strategies do not necessarily follow a developmental order, children do!

The use of strategies to develop a child's auditory, speech, and language skills is not arbitrary. Particular strategies are chosen, because they are linked to the desired outcomes for a child. In order to choose appropriate strategies, the professional must be keenly aware of overall child development and in particular be knowledgeable about auditory hierarchies and typical speech development, as

Table 3
Examples of Directive & Naturalistic Intervention

Directive Intervention

Scenario: A young child is learning to identify and label parts of the body.

Goal	Example				
To receptively label parts of the body, specifically the parts of the head (nose, eyes, mouth, ears).	During a session, the father is coached to point to and label his son's nose, eyes, mouth, and ears, while singing "Head, Shoulders, Knees, and Toes." The stimulus the parent then uses is, "Jimmy, where are your eyes?" The child's expected response is to point to and/or label his own eyes.				
<p style="text-align: center;">Possible Strategies Used to Achieve This Goal</p> <table border="1"> <tr> <td data-bbox="285 961 784 1024">1. Acoustic highlighting</td> <td data-bbox="878 961 1377 1024">3. Wait time</td> </tr> <tr> <td data-bbox="285 1045 784 1108">2. Turn-taking</td> <td data-bbox="878 1045 1377 1108">4. Repetition</td> </tr> </table>		1. Acoustic highlighting	3. Wait time	2. Turn-taking	4. Repetition
1. Acoustic highlighting	3. Wait time				
2. Turn-taking	4. Repetition				

Scenario: An itinerant teacher of the deaf pre-teaches a tenth-grade student.

Goal	Example						
To define a list of terms (e.g., civil disobedience, boycott, strike, peacemaker) related to peace and social justice.	During the lesson, the student is engaged in meaningful dialogue to increase opportunities to use these terms in the correct contexts.						
<p style="text-align: center;">Possible Strategies Used to Achieve This Goal</p> <table border="1"> <tr> <td data-bbox="285 1610 784 1673">1. Repetition</td> <td data-bbox="878 1610 1377 1673">4. Model language</td> </tr> <tr> <td data-bbox="285 1694 784 1757">2. Auditory closure</td> <td data-bbox="878 1694 1377 1757">5. Open-ended questions</td> </tr> <tr> <td data-bbox="285 1778 784 1841">3. Expansion</td> <td data-bbox="878 1778 1377 1841">6. Prompt</td> </tr> </table>		1. Repetition	4. Model language	2. Auditory closure	5. Open-ended questions	3. Expansion	6. Prompt
1. Repetition	4. Model language						
2. Auditory closure	5. Open-ended questions						
3. Expansion	6. Prompt						

Table 3
 (continued)

Naturalistic Intervention

Scenario: A mother sings to her child as they wash various dishes.

Goal	Example
The child will be exposed to the labels of various eating utensils to increase receptive vocabulary.	“This is the way we wash the plate, wash the plate, wash the plate. This is the way we wash the plate. Now it’s nice and clean.” (<i>Followed by spoon, cup, etc.</i>)
Possible Strategies Used to Achieve This Goal	
1. Positioning	3. Joint attention
2. Repetition	4. Self-talk

Scenario: During “free-play,” a kindergarten teacher sits with a group of children playing with wooden blocks on the floor.

Goal	Example
The children will demonstrate expressive knowledge of various shapes (triangle, square, rectangle, arch, cylinder).	The classroom teacher narrates the children’s play and encourages conversational exchange: “Billy, put a cylinder on top of the rectangle.” “Ashley, what shape did you put on the square?”
Possible Strategies Used to Achieve This Goal	
1. Self-talk	4. Auditory sandwich
2. Parallel talk	5. Acoustic highlighting
3. Prompting	6. Repetition

well as receptive and expressive language development. If a professional is not aware of what typical development looks like, they will not be aware when development is atypical. The professional who is aware of child development will, therefore, be aware of what skills need to be strengthened in an individual child and which strategies should be implemented to meet specific outcomes.

One of the primary goals of LSL is for a child to achieve conversational competency through listening. Therefore, all strategies are auditory strategies if they are presented appropriately.

In order to choose the correct LSL strategy, the professional must be able to continuously analyze the child's strengths and needs, anticipate the child's response, and implement the correct strategy **at the correct time**. Knowledge of a variety of LSL strategies is the first step in a learning trajectory for professionals and parents alike. The professional chooses to use a strategy or to proceed with the next strategy based on the child's response or lack of response. If the use of the selected strategy is successful, the outcome has been achieved. If the strategy does not elicit the desired outcome, the professional repeats the strategy used or introduces a new strategy. Some strategies are used for the purpose of exposure (repetition, self-talk, parallel-talk), although the professional is cognizant of the response the child gives to any use of a strategy.

A professional must not only know which strategy to use to reach a determined goal but must have the ability and competency to model and coach parents and other professionals in the appropriate implementation of the strategy. The proper use of LSL strategies requires the professional to be diagnostic in nature. Each and every response a child makes tells the professional something and leads to the decision of which strategy to employ next. Any given strategy may be specific to an activity that targets a goal or part of a classroom lesson, intervention session, or the child's daily living activities. They can be used multiple times within a lesson or session and in different ways.

In addition to LSL strategies, *scaffolding* may be needed to ensure a child meets with success. Scaffolding is support provided in a creative and adaptive manner that enables

LSL strategies are integral to a child's ability to meet their full potential and master communicative competence.

the child to learn the skills at the most independent level possible. Each child has a skill level that ranges from what they are able to do independently and spontaneously to what they are able to do with maximal assistance. Scaffolding allows the professional to work at a level that maximizes the child's learning potential at any given moment. This range of ability or "Zone of Proximal Development" (Vygotsky, 1978) represents a hierarchy of what tasks or skills a child is able to complete with the highest level of adult support to what they can do independently. As each child builds upon their established LSL skills, they are able to increase the complexity of their communicative competence.

Evaluating the effectiveness of specific strategies is often an in-the-moment process and depends upon a given response by the child. Different children respond in different ways to the use of the same strategy.

Ways to Improve LSL Strategy Repertoire

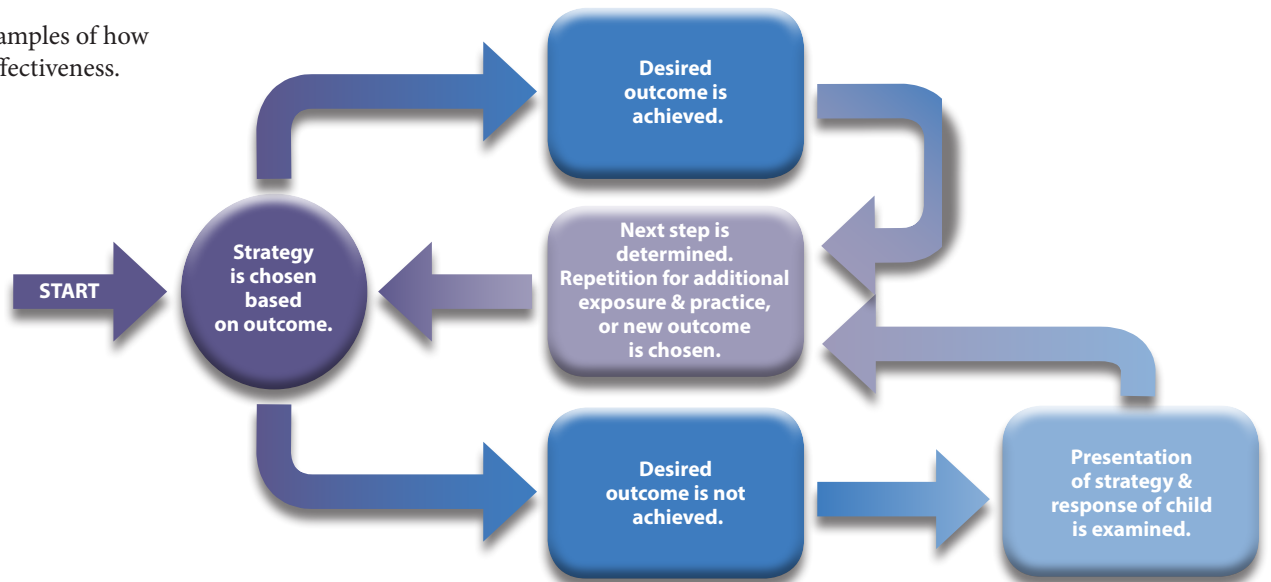
- Videotape sessions for personal, peer, or parent review.
- Partner with a colleague to increase strategy knowledge and skill level.
- Commit to professional learning on LSL strategies.
- Begin the process of becoming certified as an LSLs. Your mentor can be invaluable to your professional growth.

Conclusion

LSL strategies are integral to a child's ability to meet their full potential and master communicative competence. Professionals working with families and children who are D/HH have an obligation, therefore, to become proficient in their knowledge and implementation of these strategies. A professional must be aware of which strategies to choose and how to coach others in the use of strategies, while striving to use a variety of strategies throughout every interaction with a child who is D/HH. Brains are hardwired to learn language through listening (Cole & Flexer, 2020). Today this is possible for almost every child with hearing loss, regardless of the severity of that hearing loss. It is the strategies we employ that strengthen auditory and spoken language skills for a child who is D/HH.

Figure 1
 Evaluating Effectiveness of Specific Strategies

The flowcharts are examples of how to evaluate strategy effectiveness.



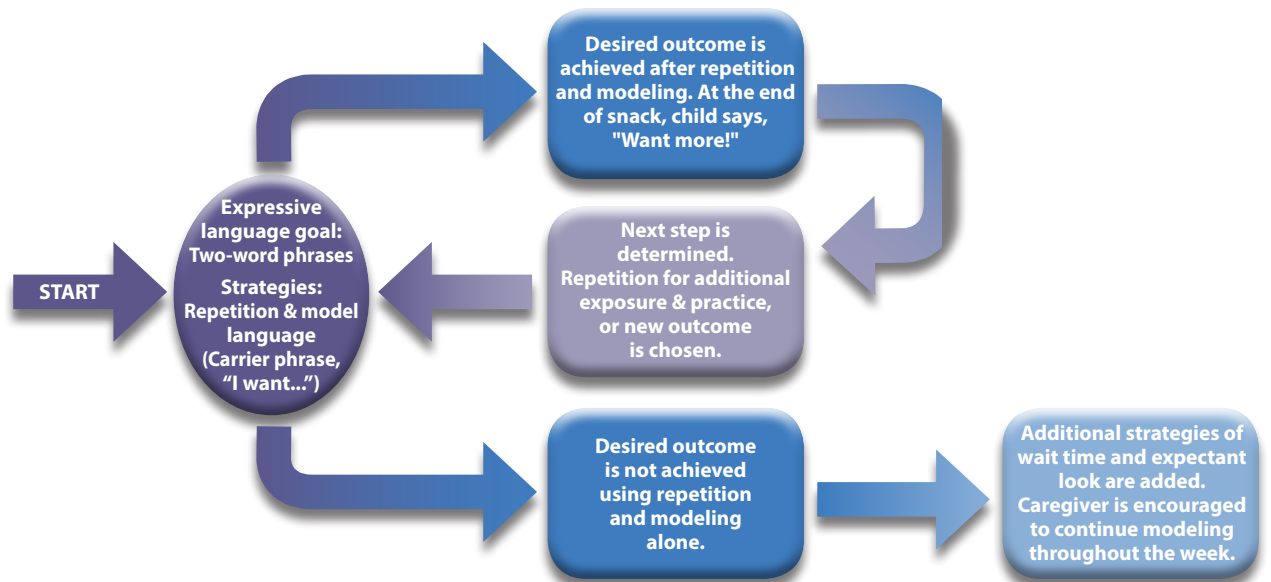
Example

A child has a receptive vocabulary of 60 words. He/she is not yet putting two words together. To encourage the use of two-word phrases, the professional and parent have selected the strategy of *modeling* carrier phrases. They select snack time to implement this strategy, because it is motivating for the child, part of the daily routine, and provides multiple opportunities for practice.

Parent: What would you like—raisins or goldfish?
Child: Goldfish.

Parent: You could say, “I want goldfish!”
Child: Goldfish.

At this point, the parent needs to decide if they can realistically expect more from their child without adding too much frustration, if they should model the language again, or choose a different strategy.



The ability of a professional to identify skill areas that are not part of their working repertoire serves as the catalyst for growth along the continuum of novice to expert.

The ability of a professional to identify skill areas that are not part of their working repertoire serves as the catalyst for growth along the continuum of novice to expert. The knowledge, application, and coaching of strategies may be an area of needed growth for many professionals. The ability to coach another in the

Developing competence using LSL strategies is a process that takes time. As each strategy is understood and applied appropriately with children in a classroom or a child in therapy, professionals who are learning to use LSL strategies for the first time should use reflective practice to assess when the strategy is achieving the desired outcome. Professionals should also reflect on why or when the strategy used did not have the intended outcome and what the potential reasons may be that the intended outcome was not achieved.

strategies should be a goal of every professional. This involves the analysis of the skills of another and the ability to take the perspective of the person who may be less competent, and assumes communication skills that will allow for the transfer of knowledge from one individual to another. It should be expected that at multiple times throughout one's career, professionals will identify areas in which they are consciously incompetent and work toward a level of competence (Howell, 1982). Professional competency occurs when a professional has the ability to describe what each strategy is, how it is used, why it is used, and exhibits the ability to coach a parent or another professional to effectively use the strategies.

A Parent's Perspective . . .

"I had no knowledge of hearing loss. You don't really know what you need to teach your child to speak and listen. The strategies and techniques are what was most helpful to me. I'd be lost without them"

—*Maria, mother of a 3-year-old child with bilateral, moderate-to-severe hearing loss*

Resources for Further Learning on LSL Strategies

Audiology Online, <http://www.audiologyonline.com/articles/listening-and-spoken-language-strategies-11245-11245>
 Auditory Verbal Strategies to Build Listening and Spoken Language Skills, <http://www.clarkeschools.org/AVstrategiesBook>
 Current Level of Functioning Forms by Cheryl L. Dickson, <http://www.auditory-verbal-mentoring.com/downloads/downloads.php>
 Elizabeth Gaffney, LSLs Cert. AVEd, has the following resources specific to LSL strategies, Instagram Account @bridgesavp, <http://www.bridgesavp.com>
 Equal Voice for Deaf Children, <http://www.evdcweb.org/lessonsmain/strategies/genstrategies.html>
 Hearing First, <https://hearingfirst.org/learning-growing-lsl/lsl-strategies-techniques>
 Listen, Learn, & Talk: A Program That Provides Listening Strategies to Parents and Professionals to Enhance Spoken Language Development, <http://www.cochlear.com/wps/wcm/connect/in/home/support/rehabilitation-resources/early-intervention/listen-learn-and-talk>
 LSLs Certification, <https://agbellacademy.org/>
 The Center on the Developing Child at Harvard University Serve & Return Resources, <https://bit.ly/3cSffEK>

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Appendix A

Reflective Practice for Strategy Implementation

This worksheet can be duplicated and used to build your repertoire of LSL strategies.

Can I eliminate the use of the strategy and still have the child meet with success?					
What other strategy could I try?					
What was child's response? Was the strategy successful?					
Activity					
Strategy Used					
Goal					
Date					

Appendix B

Linking LSL Strategies to Serve & Return

This chart can be utilized to watch videos and look for the 5 Steps of Serve & Return and identify LSL Strategies. One LSL strategy is listed below. What else could be added?

This chart could also be shared with caregivers for them to keep focused on how they are engaging in Serve & Return and the link to LSL Strategies, <https://developingchild.harvard.edu/resources/5-steps-for-brain-building-serve-and-return/>

5 Steps of Serve & Return	Tally	LSL Strategy
Notice the Serve/Share the Focus		Parallel Talk
Return the Serve/Support & Encourage		Take Turns
Give It a Name		Model Language
Take Turns & Wait/Keep It Going Back & Forth		Wait Time
Practice Endings & Beginnings		Joint Attention

