Chapter 9
Listening & Spoken Language Preschool Programs

Ellie White

Many quality listening and spoken language (LSL) programs exist to serve young children with hearing loss. These programs can differ in many ways—size, number of staff, ethnic or socioeconomic diversity of students and families, and so on—yet they each have the goal of promoting children's ability to listen and talk. To that end, these quality programs share a general framework as well as some standard programming components that allow them to meet their mission to build LSL skills in young children with hearing loss.

Photo courtesy of NCHAM

This chapter focuses on LSL programming for preschoolers with hearing loss ranging in age from 3 to 5 years old. In general, quality programs prepare each child for success in the general education environment by providing individualized instruction to develop listening, language, and speech while focusing on all development milestones. Specifically, these programs have been developed to accomplish the following:

- Teach preschoolers with hearing loss to listen and talk by facilitating the development of age-appropriate listening, language, and speech skills.
- Individualize instruction to appropriately serve a very diverse group of learners.
- Focus on all developmentally appropriate domains.
- Support each preschooler in reaching his or her full potential.
- Prepare preschoolers for success in a variety of general education settings.

With a focus on play and experienced-based learning, preschool programs have busy schedules that include auditory, language, and speech instruction along with cognitive development, creative movement for gross and fine motor development, music, early literacy, social and emotional development, and preacademics.

The Diverse Preschool Population

Currently in the field of LSL instruction, a large diversity exists among preschoolers with hearing loss. As technology for listening devices improves, young children who wear these devices become more able to access better-quality sound. These children have access to sounds that are important for learning to listen and talk—most specifically soft speech. In addition, universal newborn hearing screening is mandated in each state. Because of the newborn screening, hearing loss can now be identified during the first days of life. With this early identification, parents have the option of obtaining hearing aids for their infants to provide quality access to sound at a very early age. In addition, infants who are identified early are also able to receive family-centered early intervention services, which have the potential to allow these children to develop listening, language, speech, and social skills at the rate similar to their hearing peers. By the time these children come to preschool, many have developed early LSL skills and are ready for intensive LSL learning.

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These children are becoming more and more able to master skills as close as possible to the time that they are biologically intended to do so. This concept is referred to as ***developmental synchrony*** (Cole & Flexer, 2011).

While some are able to progress with their listening, language, and speech skills better and faster than ever before, others progress more slowly. This is the result of a number of influences, such as late diagnosis, late quality access to sound with hearing devices, detrimental environmental factors, lack of parental/family involvement, and/or the presence of other disabilities or delays. The factors affecting progress create a huge diversity in abilities of preschoolers with hearing loss who are learning to listen and talk (see *Table 1*).

Table 1

Factors Leading to a Range of Diverse Abilities in Speech & Language Learning

Developmentally Synchronized	Developmentally Delayed
• Early diagnosis. • State-of-the-art listening devices. • Early intervention services. • High level of parent/family engagement. • Consistent device use.	• Complications during pregnancy and/or birth. • Complications from life-threatening illnesses. • Late diagnosis. • Additional disabilities and delays. • Lower parent and family engagement. • Inconsistent or poor device use.

The level of diversity is constantly expanding among these children. Therefore instruction must be suited to accommodate diverse learning abilities and styles of many very different children within one program. Now that it is so common to have such diversity, as well as such potential for these students, professionals must know not only how a child performs in terms of each developmental domain, but also how each child is best able to learn age-appropriate skills. In terms of language learning, a continuum of instruction exists ranging from structured to conversational to natural. Children with hearing loss and resultant language delay will require direct, structured, explicit language instruction for at least some part of the day. Most will need all three kinds of instruction on the continuum to make sufficient progress. Quality preschool programs are specifically designed to allow a diverse group of preschoolers with hearing loss to successfully learn the skills that typically are acquired during the preschool years.

Programming Components

Auditory Development Curriculum

Quality auditory development curricula are based on the principle that children learn to talk by listening to the talk around them, learning to understand that talk, and then practicing using it themselves. This is

how children with typical hearing learn how to talk most efficiently and effectively, and this is also true for children with hearing loss. Preschoolers with hearing loss should be provided with the most state-of-the-art hearing devices available and continually monitored audiologically to ensure optimal programming of their hearing devices. For more information on optimal audiologic management, see the *Pediatric Audiology* chapter.

The human brain is designed to begin taking in auditory information in utero.

The human brain is designed to begin taking in auditory information in utero. Because children with prelingual hearing loss do not receive that information, their listening skills (in addition to language and speech skills) have great potential for delay. For children to develop age-appropriate listening skills, a specialized listening curriculum is used that builds listening skills from the most basic to the most complex.

The auditory development goal for all preschoolers learning to listen and talk is to master auditory learning, the ability to learn new concepts, and the related language and speech through listening alone. Children with typical hearing learn by listening during typical life experiences. They overhear the language around them and create meaning from it. Professionals working with children with hearing loss use a series of specific practices to foster the process called *auditory brain development* (also known as *auditory perceptual development*), so that children with hearing loss can also develop auditory learning. Auditory development practices include a combination of those listed in *Table 2*.

Language Curriculum

Preschoolers learn spoken language by listening to it and practicing using it. The preschool years are critical for language acquisition. The key to facilitating language instruction for preschoolers is three-fold:

1	To expose preschoolers to typical experiences.
2	To model the language that naturally goes with those experiences.
3	To prompt preschoolers to use the language that naturally goes with those experiences.

Whether or not a preschooler has delayed language, the ultimate goal regarding language acquisition is for the child to be successful at using social language, including the language of play. All language instruction should be based on giving preschoolers the skills they need to be successful at play, engage in real-life experiences that are typical for preschoolers, and converse with their peers.

For children whose spoken language development is delayed as a result of hearing loss, acquisition is slower. For these children, spoken language instruction must be very direct and specific. Though direct instruction is necessary, the method for delivering spoken language instruction should range from structured lessons to very natural situations (see *Table 3*).

Speech Curriculum

As preschoolers with hearing loss learn to listen to sounds around them with their hearing devices, most require specialized speech instruction in order to acquire developmentally-appropriate speech skills. The goal for speech instruction is to teach children to use developmentally appropriate speech sounds in connected speech. In general, a speech curriculum for preschoolers with hearing loss is comprised of three main components (see *Table 4*):

1	Voice
2	Suprasegmental Aspects of Speech
3	Articulation

Speech services are provided daily by either a speech-language pathologist, speech implementer, or a teacher of the deaf. In some cases, a child has the same teacher for speech and for language instruction, which increases the likeliness that speech practice can be carried over throughout the day. In any case, it's imperative that professionals work collaboratively to share goals and progress, so each professional working with an individual preschooler knows what speech skills the child should be held accountable for using/practicing.

Table 2
Auditory Development Practices

Naturally Occurring Auditory Opportunities

Children develop auditory skills by capitalizing on naturally occurring auditory opportunities. This happens in a few ways:

1. By using robust and interesting language to describe children's experiences as they occur, so children can hear the language associated with their lives.

2. By capitalizing on instances in which children miss what was said to them. In this case, the teacher interjects and directs the child to listen again and focus on listening while the speaker repeats what was said.

"What did you hear? Patrick is talking to you. Let's ask Patrick to say that again. Listen to Patrick."

3. By requiring children to listen when they aren't expecting to.

For example, at transition time, give a direction while the children aren't expecting.

"Sit on the window seat, and I'll give you a prize."

4. By teaching children to attend to and acknowledge talk that is not explicitly directed to them. Many children with hearing loss must be formally taught to overhear, so they can gain information from any talk around them—not just the talk that is directed to them. Teachers can do this by:

Modeling the thinking process.

"I just heard your teacher say we aren't going outside today."

Pointing out to the child that he or she should listen.

"You have to listen to him now, because he's talking."

Pointing out when one or multiple people said something, but the child didn't listen to them.

"Miss Jane said it, and Mary said it—but you weren't listening. Let's listen this time. Miss Jane, could you say that again?"

Auditory Sandwich Technique

One of the most effective and efficient ways to develop listening skills is to provide many opportunities for children to listen without the aid of visual cues. The strategy of using auditory-only cues means to talk without using visual cues. Yet at times a child might not understand an auditory-only cue, especially depending on his or her listening ability and on background noise in the listening environment. Because of this, he or she might require some visual information to understand the auditory message. The auditory sandwich technique has its name because it includes an auditory-only cue, the same auditory cue with a visual, and lastly the auditory-only cue again. To do this, give the auditory-only cue and then repeat the cue while adding a visual cue (pointing, showing, etc.). When it's clear that the child understands, repeat the auditory-only cue once more without the visual cue, so he or she can practice listening. Always begin and end with auditory-only information to boost the child's listening skills. For more information on the auditory sandwich technique, please see the *Listening & Learning to Talk* chapter.

Table 2
(continued)

Auditory Feedback Loop

Auditory feedback is the information a person gets from listening to himself or herself produce sounds. The auditory feedback loop is the cycle in which a child with quality access to sound says something, listens to what he or she says, and then modifies what he or she said to make it sound right. For more information on the auditory feedback loop, please see the *Listening & Learning to Talk* chapter.

Auditory Training Activities

Many children with hearing loss require a structured approach to listening development in which they can master a series of foundational listening skills. The process of auditory training includes teaching children to detect and identify certain speech sounds, words, phrases, and sentences. Professionals can readily find auditory training curricula that allow for systematic assessing, teaching, and tracking of early listening skills. These curricula include auditory training activities to develop listening skills from speech detection to discrimination of suprasegmental aspects of speech, discrimination and then identification of words that differ in vowels and consonants, and finally the perception of connected speech. Instruction is based on supporting children through all levels of auditory development until the point at which they perceive connected speech in various contexts through listening alone. The CID Speech Perception Instructional Curriculum and Evaluation (SPICE) is a complete auditory training curriculum (https://cid.edu/professionals/shop/cid-spice-2nd-edition/).

Photo courtesy of Sound Beginnings/Utah State University

Table 3
Spoken Language Instruction

Continuum of Language Instruction

The daily schedule for language instruction should be strategically designed to give children an opportunity to learn in settings that vary in the amount of structured teaching. The most direct and contrived language periods of the day are structured language lessons. The natural setting for instruction is centers, which is the least structured, and the most natural or unstructured. The conversational language period is designed as a stepping stone for practicing language learned in more structured lessons before using it proficiently in natural settings. Within each of these settings, a teacher can individualize instruction for each of the preschoolers within that setting. This combination of language lessons ranging from structured to natural allows for all three necessary environments for preschoolers with hearing loss and resultant language delay to learn spoken language:

Structured Language Lesson

A direct, contrived, repetitive, and overt lesson. This explicit teaching allows the teacher to introduce new vocabulary and syntax targets and repeatedly prompt the use of those targets. The structured learning environment typically includes one student or two like-learners, so instruction can focus on very specific objectives that can be repeatedly targeted and practiced. Unlike children with typical hearing, most preschoolers with hearing loss and resultant language delay require this level of intense, repetitive instruction to learn new vocabulary and language. The motor activity of repeatedly using the targets increases children's ability to understand and eventually use the targets on their own with less prompting and eventually automatically with no prompting at all. In their 2016 article, Lund and Douglas found evidence to support the effectiveness of explicit instruction for children with hearing loss. From their data, they determined that "explicit instruction [of vocabulary] paired with opportunities for use of new words throughout the day may better facilitate word learning for children with hearing loss…" (Lund & Douglas, 2016).

Conversational Language Lesson

A direct and contrived lesson that allows the students to practice using multiple vocabulary, syntax, and conversational targets learned in more structured settings. This includes two to five students. Most preschoolers with hearing loss and resultant language delay struggle to use language learned in a structured environment in the more natural environment like that of a typical preschool classroom. The conversational language lesson creates a stepping-stone between the very structured lesson and the natural environment by providing opportunities to practice skills learned in a structured environment before being expected to use those skills in a natural environment. Conversational language lessons focus on language preschoolers must practice to be successful in the natural setting. The lesson activity is often an experience that the children will later repeat using dramatic play during the developmental learning centers period.

Natural Language Lesson

A typical learning environment for preschoolers, such as developmental learning centers. This includes a large group of preschoolers and at least one teacher. Preschoolers with hearing loss and resultant language delay benefit from time in this natural setting, so they can practice using the vocabulary, syntax, and pragmatic language they have learned in teacher-contrived lessons in a pragmatically-appropriate way with peers. Teachers model the language of play in this environment as well as facilitate the use of vocabulary, syntax, and pragmatic language skills. Success in typical preschool periods, such as the developmental learning centers period, is the goal for preschoolers. Centers in particular allow for using language to play, natural language opportunities, incidental language learning, and peer interaction. In centers, preschoolers are exposed to vocabulary and syntax commonly used during play, social and behavior models of peers during play, and activities for building developmentally-appropriate preschool skills. If the goal for preschoolers with hearing loss is to successfully transition to general education, teachers must expose them to the general education environment and moreover teach them how to be successful there.

Table 3
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Vocabulary Instruction

Vocabulary instruction for preschoolers who are deaf and hard of hearing (D/HH) begins with functional words, moves to the First 100 Words List, more basic vocabulary, theme-related vocabulary, and vocabulary specific to functioning in a typical preschool classroom. Teachers benefit from a systematic method for determining present vocabulary levels, selecting vocabulary goals for individualized education programs (IEPs), determining vocabulary targets for lessons, monitoring and tracking vocabulary progress, and reporting vocabulary progress to parents and other professionals. One such method is use of a criterion-referenced functional assessment for vocabulary (https://cid.edu/professionals/shop/cid-early-childhood-vocabulary-rating-forms/) For more information on vocabulary instruction, please see the *Literacy & Academic Content* chapter.

Syntax Instruction

Some children begin preschool with a very small working vocabulary of less than 50 words. Other children already understand and use at least 50-60 words by the time they begin preschool. Once preschoolers are able to understand and use 50-60 vocabulary words, including a variety of nouns, verbs, and adjectives, they can begin to combine words in meaningful ways. Syntax instruction for preschoolers with hearing loss begins with two- and three-word combinations and moves to simple sentences, compound sentences, and complex sentences containing various syntactic elements. Spoken English includes many syntactic structures made up of elements, such as nouns, verbs, adjectives, prepositions, pronouns, adverbs, questions, conjunctions, and so on. Teachers benefit from a systematic method for determining present syntax levels, selecting syntax goals for IEPs, determining syntax targets for lessons, monitoring and tracking syntax progress, and reporting syntax progress to parents and other professionals. One such method is use of a criterion-referenced functional assessment for syntax (https://cid.edu/professionals/shop/cid-tags-teacher-assessment-of-grammatical-structures-starter-kit/). For more information on syntax instruction, please see the *Listening & Learning to Talk* chapter.

Pragmatic Language Instruction

This instruction is based on helping preschoolers develop similar pragmatic language to their same-aged peers with typical hearing. Pragmatic language skills for preschoolers can be divided into three subcategories:

- ***Social language skills***, such as the ability to use language to make comments, share ideas, make choices, request help, or ask permission.
- ***Conversational skills***, such as the ability to use language to initiate conversation, maintain conversation, take two-three conversational turns, or end conversations.
- ***Language skills related to play***, such as the ability to use language while pretending with toys, negotiate play with others, talk for a doll or puppet, or elaborate on pretend play themes.

Teachers benefit from a systematic method for determining present pragmatic language levels, selecting pragmatic language goals for IEPs, determining pragmatic language targets for lessons, monitoring and tracking pragmatic language progress, and reporting pragmatic language progress to parents and other professionals. One such method is use of one or more criterion-referenced functional assessments for social language, conversational competency, and language-related to play (https://cid.edu/professionals/shop/cid-preschool-pragmatic-language-rating-forms/; https://cid.edu/professionals/shop/cid-preschool-symbolic-play-rating-forms/). For more information on pragmatic language instruction, please see the *Literacy & Academic Content* chapter.

Table 4
Speech Curriculum for Preschoolers

Voice		
The category of speech that includes voicing, breath, and voice quality. Voicing is the ability to turn the voice "on" or "off" by controlling	airflow through the vocal folds in the larynx. Breath is the ability to use the appropriate amount of breath for speech and control the breath for appropriate	syllable, word, and sentence duration. Appropriate voice quality means the absence of a voice that is breathy, hoarse, strained, raspy, hypernasal, or hyponasal.
Suprasegmental Aspects		
Because suprasegmental aspects are so important for conveying intended	meaning, speech instruction also focuses on these aspects of speech,	including durational patterns of words and sentences, intensity, and pitch.
Articulation		
The process of controlling and modifying air stream through the articulators (tongue, teeth, lips, jaw, hard palate, soft palate, uvula, velopharyngeal port, and glottis) to produce the sounds of speech in isolation and in combinations. Accurate articulation is necessary for a child's spoken language to be intelligible by the listeners around	him or her. Articulation instruction can begin at the phoneme and syllable level but should quickly progress to meaningful words, phrases, and connected language, so preschoolers can acquire appropriate speech skills for words and phrases that are meaningful and useful to them. In addition, some children with hearing loss who have	received early intervention begin preschool at age 3 with nearly age-appropriate speech skills. These children are likely able to continue developing articulation skills at the connected language level. They will continue to benefit from structured articulation practice as they learn to develop speech sounds that are typically acquired at older ages.

Though scheduling for speech minutes can vary, it is important for preschoolers with delayed speech skills to have a daily period dedicated to direct instruction of speech. This is often combined with auditory training minutes because of the close relationship between speech production skills and speech perception skills.

Professionals benefit from a systematic method for determining present speech levels, selecting speech goals for IEPs, determining speech targets for lessons, monitoring and tracking speech progress, and reporting speech progress to parents and other professionals. One such method is use of a criterion-referenced functional assessment for voice, suprasegmental aspects of speech, and articulation (https://cid.edu/professionals/shop/cid-speech-skills-rating-forms/). For more information on speech instruction, please see the *Listening & Learning to Talk* chapter.

Early Literacy Curriculum

Success in life is strongly correlated to proficient reading ability. A strong focus on literacy within the school is key to preparing preschoolers for eventual reading proficiency. Research suggests that "statistically speaking, students who are D/HH only achieve a reading level of fourth or fifth grade by the time they are 17 years of age" (Gallaudet Research Institute, 2003). Moreover, research shows that early literacy skills must be taught to very young children as "…spoken language, reading, and writing develop together in literate environments and mutually reinforce one another in development" (Teale & Sulzby, 1989, p. 4). Students with delayed language skills in spoken English are likely to have delayed reading skills in written English. Because of this, it is imperative to begin fostering preschoolers' language skills while simultaneously building their early literacy skills. Teachers focus on early literacy skills by following the strategies shown in *Table 5*.

Table 5
Strategies to Focus on Preschoolers' Early Literacy Skills

Creating a Literacy-Rich Environment

Any environment that is considered "literacy-rich" is one that promotes active reading, writing, listening, and speaking. A literacy "feel" is both physical (because print and books and writing are all around) and attitudinal (because the importance of literacy is something that is constantly exuded). Literacy should be encouraged within every aspect of the program. Each school day should include opportunities to incorporate print to make the environment as literacy-rich as possible. This can include:

- Books that support language lessons.
- Books that focus on certain speech sounds during structured speech lessons.
- A book corner in a typical centers environment.
- Writing materials for exploring with print.
- Print materials for dramatic play, such as menus in a play restaurant or clipboards and files in a play doctor's office.
- Opportunities to go to the library.

Print should be everywhere in the environment—halls, classrooms, bathrooms, etc. This exposure gives preschoolers the opportunity to make the connection that they can write what they say, read what they write, and say what they read.

Increasing Knowledge of Print & Books

Preschoolers must learn to recognize print and understand the function of print and books. Exposure to print gives preschoolers the opportunity to make connections between print and what they hear, see, and do. Preschoolers should be exposed to the following conventions of print, which help them understand what print represents, how it works, and that it is a consistent method (Weaver, 2009):

- Location of print in books and in the environment.
- Text features, such as letter shapes, punctuation, capitalization, and special fonts.
- Text concepts, such as word boundaries, spaces between words, the number of words/letters, the first/last part of a word/sentence.
- Letter names and sounds,
- Letter/sound correspondence,
- Illustrations are meaningful and represent the written words,
- Understand reading vocabulary: page, cover, title, author, letter, word, sentence.

Preschoolers must also learn book handling and orientation skills, such as:

- Handling books carefully.
- Holding books right side up.
- Looking at pictures.
- Telling stories from pictures.
- Looking at books from front to back.
- Telling the title.
- Looking at print.
- Attempting to read print.
- Following print from left to right.
- Asking questions about stories.
- Rereading interesting books.
- Properly putting books away when finished (Weaver, 2009).

Preschoolers should be exposed to print during the course of a school day through read-alouds, time with books, and writing or journal time. Many preschool teachers post a picture schedule with print in their classrooms in addition to labeling certain areas and objects in the classroom with the printed words.

Table 5 (continued)

Building Comprehension of Stories

The purpose of reading is to construct meaning from text. To do that, preschoolers must be able to comprehend the events and details of a story. Comprehension of stories begins with giving children many opportunities to listen to stories read aloud. According to the Commission on Reading (1985), "The single most important activity for building the knowledge required for eventual success in reading is reading aloud to children." Exposure to read-alouds builds language and literacy by expanding experiential background, developing vocabulary, building awareness of language of books, exposing preschoolers to basic concepts of print and how books are read, and providing pleasant associations with books. When teachers read aloud to preschoolers, they use gestures, props, explanations, questions, tone of voice, facial expression, and other cues to aid comprehension. Illustrations provide even more cues. Preschoolers use these cues along with the language of the story to construct meaning. In addition to and along with reading aloud, teachers foster comprehension skills in a variety of ways:

Teaching Vocabulary in Stories

One of the most important aspects of the read-aloud is the exposure to new vocabulary. Teachers can preteach some of the vocabulary most important to the story, so preschoolers can better understand the meaning of the text containing that vocabulary. In addition, teachers increase comprehension of vocabulary during the read-aloud by making comments and asking questions when reading new vocabulary within the story. Preschoolers use the context of the story along with the comments and questions to better understand the story. Lastly, teachers reinforce the vocabulary of the story by creating story extension activities following the read-aloud.

Questioning

Another way to build comprehension is through questioning. By asking literal questions, teachers can see that students understand important details and sequence events of the story. Inferential questions help students draw conclusions, make predictions, and make personal connections. Evaluative questions at the preschool level focus on asking children to think about what they like about the story and what made it so interesting. Teachers choose to ask prereading questions to consider what the story is about, activate prior knowledge, and possibly make some predictions. For example, "What do you think this book will be about?" and "What do you think will happen in this book?" During the read-aloud, teachers might ask some questions to check for attention, boost understanding, make predictions, and point out cause and effect. These can include literal, inferential, and predicting questions.

Examples of questions during the read-aloud:

- *Where is the character going?*
- *What is the character doing?*
- *What will he do next?*
- *Why did that happen?*

Examples of inferential and evaluative questions after finishing the read-aloud:

- *Did you like the book and why?*
- *What happened in this book?*
- *What is your favorite part of the story?*
- *Who is your favorite character and why?*

Questioning encourages spoken language, conversation, high-level thinking, and social skills that the read-aloud creates.

Table 5 (continued)

Indicating a Problem in a Story

Teachers often choose stories with identifiable problems and clear solutions. During the read-aloud, teachers can prompt preschoolers to determine the problem. As preschoolers become more able to comprehend simple problems in stories, teachers introduce more complex stories to promote critical thinking skills related to the resolution of the problem.

Modeling & Requesting Predictions

Predicting—or the act of telling what might happen—is a higher-level thinking skill that involves use of cues and inferences. It is vital to reading comprehension. Teachers can encourage predictions both before reading and during. Before reading, teachers ask children to predict what the story might be about, who might be in the book, and what will happen based simply off the cover picture and title or from a "picture walk." During the story, teachers ask specific questions for children to think about what might happen next. Accurate predictions are not necessary, but they should be on topic. Predicting is a way for children to think about possibilities based on what they already know. It builds excitement and interest in the story.

Building Episodic Memory

Episodic memory is memory of experiences and the series of events that make up that experience. It is the ability to picture an experience in one's mind as a series of events and tap into that memory when talking about it. It requires a person to perceive the present moment as both a continuation of the past and prelude to the future (McGuigan & Salmon, 2004). Episodic memory is required for telling stories, recognizing relationships, understanding cause and effect, making predictions, and making inferences.

Creating Mental Models

Mental models are "personal, internal representations of external reality" (Jones et al., 2011). A mental model can include a person's thought process about an event or series of events. Understanding a story read from a book requires a child to build in his or her mind a representation of the situation described in the text.

Fostering Theory of Mind

Theory of mind is the ability to understand that others have beliefs, desires, and intentions that are different from one's own. This ability can be developed through questioning (i.e., "How do you think he feels?") and through pretend play when a child acts as a character in a story and takes on the feelings and actions of that character (Westby, 2011).

Providing Story Extension Activities

Story extensions include acting out the story, art activities, cooking or experiences related to the story, etc. These activities serve to build comprehension of the story as well as build episodic memory, mental models, and theory of mind.

Photo courtesy of NCHAM

Table 5 (continued)

Promoting Emergent Storybook Reading

Teachers actively look for preschoolers to engage in reading-like behaviors that inevitably occur for children who are read to frequently. Teachers note where students are with their emergent reading, observing for the following:

- Talk about pictures but do not tell a story.
- Use illustrations to create a story, but expression and intonation are of telling rather than reading.
- Use pictures to retell, and portions sound like oral reading.
- Use pictures and words, and expression and intonation sound like reading.
- Use print to read part or all of the story.

Providing Experience Stories

Experience stories are another way to build comprehension of text. These stories include pictures of preschoolers engaging in typical experiences and print that describes the pictures. Experience stories include a number of steps:

- Preschoolers participate in a real-life experience that is typical for children their age.
- After the experience, the teacher prompts the preschoolers to describe the experience using the pictures.
- The teacher writes the story as the preschoolers tell it. The teacher reads each sentence, and a preschooler "reads" it back.

Because preschoolers are familiar with the experience and aided by the pictures, they are often able to read the stories on their own using the words as markers for the correct language. Experience stories help preschoolers build comprehension of the text, recognize letter/sound correspondence, and talk about school experiences at home with their parents for continued practice.

Engaging in Shared Writing

Shared writing is an instructional approach to teach writing to students by writing with them. In this process, the teacher acts as the writer while the preschoolers contribute ideas. Shared writing is a way to build the prerequisite skills for emergent writing, which mainly include:

- The knowledge of some conventions of print, such as the left-to-right orientation of print.
- Moving down a line after coming to the end of a line.
- The concept that combinations of letters create words and combinations of words make sentences.
- That space is between words, and so on.

Promoting Emergent Writing

Emergent writing includes children's efforts to write on their own. Preschoolers initially learn about writing for a purpose using the process of drawing, then describing, and then writing. They draw a picture, describe orally what is happening in the picture, and then attempt to write the description. Levels of emergent writing include letters bearing little relation to actual letters, strings of letters in an attempt to create a word, inventive spelling, words partially spelled correctly, and words spelled correctly.

Table 5
(continued)

Building Phonological Awareness

Phonological awareness is the ability to detect rhyme and beginning sounds and to hear separate words in sentences, separate syllables in words, and separate sounds in words. It includes rhyming, alliteration, word awareness, syllable awareness, and phonemic awareness. It is also thought of as the consciousness of sounds in words and the ability to detect units of sound in our language. Phonemic awareness is a subset of phonological awareness. It is a sensitivity to and control over phonemes and the ability to hear and manipulate the individual sounds in words. Preschoolers indicate phonological awareness abilities by:

- Detecting rhyme.
- Identifying and counting syllables in words.
- Identifying initials sounds in words.
- Naming words that begin with the same sounds.
- Blending words (hot + dog = hotdog, or c + at = cat).
- Identifying final and medial sounds in words.
- Segmenting words (hotdog = hot + dog, or cat = c + at).
- Manipulating sounds by adding and/or deleting phonemes. (Take the /m/ off of mat and put on /p/. What do you get? Pat.)

Preschoolers with hearing loss must have optimal access to sound for mastery in phonological awareness. This skill is very dependent on the ability to listen to and discern sounds. In addition, language ability is closely related to phonological awareness. Gunning states, ". . . language is the foundation for phonological awareness. The larger the children's vocabularies and the better their articulation of speech sounds, the easier it is for them to acquire phonological awareness. Initially, children learn words as wholes. The ability to segment individual sounds in words develops as children's vocabularies grow and as they acquire larger numbers of words that have similar pronunciations, such as cat, can, cap, cab" (Gunning, 2005).

Teaching Phonics

Phonics instruction for preschoolers focuses on helping children learn letter names and corresponding sounds. For example, "This is a capital B. This is a lower case b. Both of these letters say /b/." Preschoolers learning to read must first have general alphabet knowledge, including knowing the name for each uppercase and lowercase letter and knowing the sound for each letter. In addition, preschoolers learn to sort words by initial letter and write each letter.

Fostering Preschool Cognitive Skills Related to Literacy

These skills most predominantly include patterning and sequencing.

Table 5 (continued)

Patterning	Sequencing
Patterning is an auditory or visual discrimination task that follows rules. It is one of the most basic skills preschoolers accomplish. While often considered a premath skill, there are many patterns in language that a child must master on the road to literacy. Preschoolers need the prerequisites of matching and understanding same vs. different in order to learn patterning. We often think of patterning as manipulation of objects (red block, blue block, red block, blue block). This rule is ABAB. There are many patterns in language as well. A solid foundation in understanding patterns can contribute to a child's success in literacy. One example is the pattern of rhyming. For example, c…at, b…at, f…at, m…at. Preschoolers learn to consider two sounds, hold onto one, and substitute the other. In terms of a mathematical rule, the example of cat, bat, fat, and mat would be BACADAEAFA. Many books have predictable patterns. When children are able to understand the pattern, they can contribute to telling the story.	Sequencing is the ability to place objects and events in a specific order. It is a cognitive skill most typically associated with premath and early literacy skill. Sequencing skills start with the ability to sequence objects. Preschoolers learn to sequence objects from smallest to largest, shortest to tallest, and so on. Next, children learn to sequence events. Understanding the order of events in a book contributes greatly to comprehension of the story. Terms, such as *first*, *next*, *then*, and *last*, are commonly used to refer to what happens in a story. In addition, preschoolers must learn to sequence sounds they hear as part of phonological awareness. Preschoolers learn to identify what sounds they hear at the beginning and end of words. For more information on early literacy instruction, please see the *Literacy & Academic Content* chapter.

Benefits of Music

Because of the robust nature and various positive effects of music—enjoyment, relaxation, stimulation, motivation, and so on—it is an important component to any quality preschool program. In addition to the pleasure that preschoolers derive from music, it is also a useful tool for learning. Research suggests music positively affects development of listening, language, vocabulary, literacy, and motor skills (Kindermusic, 2008). Music can also be a fun and interesting way to promote motor skill and vestibular development related to balance and body awareness. Teachers use mainstream music in CD, video, or mp3 form, as well as finger plays, nursery rhymes, and children's songs. Preschoolers can learn to listen to the sounds, perform associated action, and listen for the beat and clap and tap along to it. As an added benefit, these forms of rhythm and music also can support communication, fine and gross motor skills, and most importantly listening and language skills. Some professionals—called music therapists—have specialized training in music intervention for children with special needs. One such therapist, Chris Barton, has extensive experience working with children with hearing loss (www.christinebarton.net). For more information on music in education, please see the *Listening & Learning to Talk* chapter.

In addition to the pleasure that preschoolers derive from music, it is also a useful tool for learning.

Theme-Based Learning

One effective way to organize the curriculum over the course of a school year is by theme. Themes, which are also referred to as units of study, enable teachers to dedicate 1 or 2 weeks to a developmentally appropriate topic, and they provide a foundation for integrated learning. Thematic units help build connections about all the concepts and language that goes with the theme. Theme-based learning allows for acquisition of typical vocabulary, syntax, pragmatic language, and preacademic concepts associated with the theme. Instruction is most beneficial when preschoolers are able to use background knowledge to make connections

between what they already know and what they are learning. Themes help children make those connections. Themes can also be a time-saver for teachers in planning, organizing, and teaching their lessons. They are often chosen based on the following factors:

Play Value

Preschoolers learn through play. Themes that easily lend themselves to playing are often some of the most effective and favored themes. For example, a theme on *babies* lends itself to endless pretend play scenarios as preschoolers feed, rock, and dress their babies; take them for a walk in a stroller; and put them to bed.

Relevance to Real-Life Experiences & Fixed Yearly Events

Preschoolers learn about their world through experiences. Themes that are based on real-life experiences help children learn more about their world. For example, the theme of *autumn* allows the children to discover and learn about season changes, weather, nature, and clothing for cooler temperatures.

Timing

Timing is an important consideration when choosing themes. Themes can be chosen based on preschoolers' current interests and what they are talking about, language needs, current play skills, and seasonal or holiday themes.

Teachers can effectively plan for theme-based instruction using a series of question prompts to guide their planning. These can include the following:

- *What concepts do typically developing preschoolers know about this theme?*
- *What experience do I want preschoolers to have?*
- *How do typically-developing preschoolers pretend about this theme/experience?*
- *What play problem might exist within the pretend play about this theme?*
- *What experiences can be represented through symbolic play in the different centers areas (dramatic play, block, sensory table, and so on)?*
- *What preschool concepts are associated with this theme?*
- *What vocabulary is associated with this theme?*
- *What syntactic targets are associated with this theme?*

In addition, teachers can effectively reflect on theme-based instruction using a series of questions and prompts to consider new possibilities and further develop the growth mindset:

- *In general, how did this theme go? What makes me say that?*
- *What are things I want to remember to do next time I do this theme?*
- *What do I want to remember to avoid next time I do this theme?*
- *What structured and conversational language lessons led to student success at centers?*
- *Describe the two most effective instructional strategies used during this theme.*
- *Describe one challenge about this theme.*

The responses to these reflective questions and prompts can be instrumental in gauging student success as well as in planning in the future.

Focus on the Individual Whole Child

LSL preschool programs share the common goal of helping children with hearing loss and resultant language, speech, and listening delays "catch up" to the skill levels in those areas that are typical of same-aged peers. Due to the large diversity among preschoolers with these delays, teachers must meticulously individualize instruction to meet specific listening, language, and speech goals for each child. Though these programs specialize in this individualized instruction in these areas, they also must monitor preschooler's global development, including all developmental milestones. To develop the whole child, teachers focus on acquisition of skills that are typically acquired during the preschool years. These skills can be divided into eight main areas of focus that include the following:

- Cognitive
- Motor
- Social/emotional
- Early literacy
- Preacademic
- Technology

And last, but certainly not least, communication skills—listening, language, and speech.

Preschool developmental milestones typically come from various sources on age-appropriate skill development for preschoolers as well as two standard sources:

- Developmentally Appropriate Practices mandated by the National Association for the Education of Young Children (NAEYC)
- Individual state standards

Inclusion in Typical Settings/Integration with Peers Who Are Typically Developing

For preschoolers with hearing loss, peers with typical hearing can provide excellent language models and many opportunities for exposure to typical peer behavior and social skills.

For preschoolers with hearing loss, peers with typical hearing can provide excellent language models and many opportunities for exposure to typical peer behavior and social skills.

Inclusion in typical preschool settings provides opportunities for preschoolers with hearing loss to have exposure to typical language and speech models, develop appropriate pragmatic skills, and engage in play with preschoolers who are typically developing. Inclusion enhances the development of language skills for children with hearing loss beyond what they are able to learn solely from their teachers and other children with hearing loss. Preschoolers can learn directly from the models of their peers with typical hearing. Research shows that preschoolers with hearing loss require interventions with hearing peers—often including facilitation by teachers—to learn specific social strategies in peer groups (DeLuzio & Girolametto, 2011). Hearing peers' use of appropriate pragmatic language provides opportunities for teachers to facilitate interactions between preschoolers with hearing loss and their same-aged hearing peers.

Caregiver Involvement

When young children transition from Part C to Part B, their home-based service provision becomes less frequent or ends entirely. Yet parents' and caregivers' need for support and knowledge of LSL doesn't end there. Caregivers still require a tremendous amount of support as they continue to learn to teach LSL skills to their young child with hearing loss. To that end, LSL preschool programs often provide support to caregivers and families in a variety of ways (see *Table 6*).

Physical & Occupational Therapy & Preschoolers with Hearing loss

Though many preschoolers do not qualify for occupational and/or physical therapy services, children with hearing loss may have issues with gross and fine motor development, sensory integration, behavioral regulation, and cognitive processing. This could be because of the close proximity and connectedness of the auditory and vestibular systems, underlying sensory problems, environmental causes, or for unknown reasons. Many children do not show signs of motor, sensory, or behavioral issues until beginning preschool when they are required to sit, attend, follow directions, and focus their attention in order to acquire new listening, language, speech, and other developmental skills. Because of this, many programs offer physical and occupational evaluation as well as services.

Table 6
Ways That LSL Preschool Programs Provide Support

Meetings

Caregivers benefit greatly from regularly scheduled parent-teacher meetings in which LSL professionals act as coaches. The goal of these meetings is to build a relationship between caregivers and professionals. The relationship provides a foundation for sharing information and helping caregivers know what to do to foster LSL development within the context of their own family lives.

IEP Conferences

Because caregivers are the most important members of the IEP team, they work closely with other team members throughout the IEP process. Caregivers meet with professionals at least twice per year to write and review a child's IEP. For more information on IEPs, please see *Chapter 10*.

Table 6
(continued)

Home-School Connection

Besides meetings and conferences, teachers communicate with caregivers in a variety of ways to provide information and support:

Daily Communication

Many teachers choose to communicate daily with caregivers. This is often done in person, before and/or after school, in person as caregivers observe in the classrooms, by phone, text or email, or by notes written between teachers and caregivers.

Experience Stories

After teachers and children share an experience and write an experience story, teachers can send the stories home for caregivers to reinforce the concepts, vocabulary, and language. This helps caregivers see what their preschoolers are learning at school and gives caregivers yet another opportunity to help their children practice the language that they are learning through direct instruction while in their most natural environment.

Vocabulary Cards

Teachers may regularly send home vocabulary cards representing the vocabulary that is taught through direct instruction at school. Print is used to label the words, which helps preschoolers learn to make the connection between the picture and the word it represents. Vocabulary cards are a way for caregivers to know what vocabulary their children are learning at school, so they can continue to provide opportunities for their children to practice using those words in natural settings outside of school.

Picture Pages

Teachers might choose to send home a single page containing a picture of the preschoolers engaged in an activity and some target vocabulary and language from that activity. These are intended to provide caregivers with the theme, vocabulary, and language their children are learning at school. They provide a method for caregivers to practice the vocabulary and language at home by using the picture as a prompt.

Newsletters

Many preschool programs send home a weekly or monthly newsletter containing information about upcoming activities and events, a highlighted Star Student or Student of the Week, suggestions for improving listening and language skills at home, suggestions for increasing early literacy skills at home, and activities that relate to the themes for caregivers to try at home with their children.

Special Events

Preschool programs often provide a number of events for caregivers to attend. This could include informational seminars or workshops, back-to-school events, open house, field trips, holiday celebrations, parties, literacy fairs, science fairs, plays or other entertainment, graduation, and end-of-the-year events.

Family Support Services

Some of the best support a caregiver can get is that from another caregiver. Preschool programs often provide support groups for caregivers of young children with hearing loss. The purpose is to provide families with a scheduled time to talk about parenting issues with others who are in similar parenting situations. This could simply include time to talk as well as guest speakers, depending on caregiver need and request, and/or a system for helping individual caregivers get in touch with each other. When caregivers feel comfortable and welcome in the school community, they not only respond to the school staff more effectively, but they are able to build system relationships with other supportive caregivers. A welcoming climate allows caregivers to support each other in addition to the support received from the staff.

Prompting

Prompting is the single most important instructional skill a professional uses to help children improve their language.

Prompting is the single most important instructional skill a professional uses to help children improve their language. Well-trained professionals in the field of LSL excel at prompting the use of language. It is an art that takes years of practice and guidance to master. Though it may seem simple by definition and description, it can be very complex and layered.

The importance of prompting lies in the fact that it promotes the child's use of language and development of verbal working memory. The more a child talks, the better he or she becomes at talking. Research shows that verbal working memory is partly developed by using new language, and that young children acquire vocabulary (and language) more rapidly when they have to use and process it frequently (Newbury et al., 2015). For language instruction to be most efficient and effective, a child must use or say the language. The child must talk. For this to happen, the professional must prompt the child to talk.

Prompting opportunities can be divided into three specific instances:

1	When the child has not said anything.
2	When the child has said something, but the utterance contains an error.
3	When the child has said something but did not provide enough information to get his point across.

The following prompting strategies can be used in isolation or in combinations to elicit the child's use of language. For a complete list of these prompting opportunities and strategies, see *Figure 1*.

Use an expectant/ puzzled look.	Use the language in the question.
Request information.	Recast.
Request clarification.	Model for imitation.
Request specific language.	Point.
Request a sentence.	Use print.
Repeat the error.	Withhold materials.
Use false misunderstanding or sabotage.	Use kinesthetic markers.
Comment.	Use mouth shapes.

In addition to prompting, effective instruction includes two key factors:

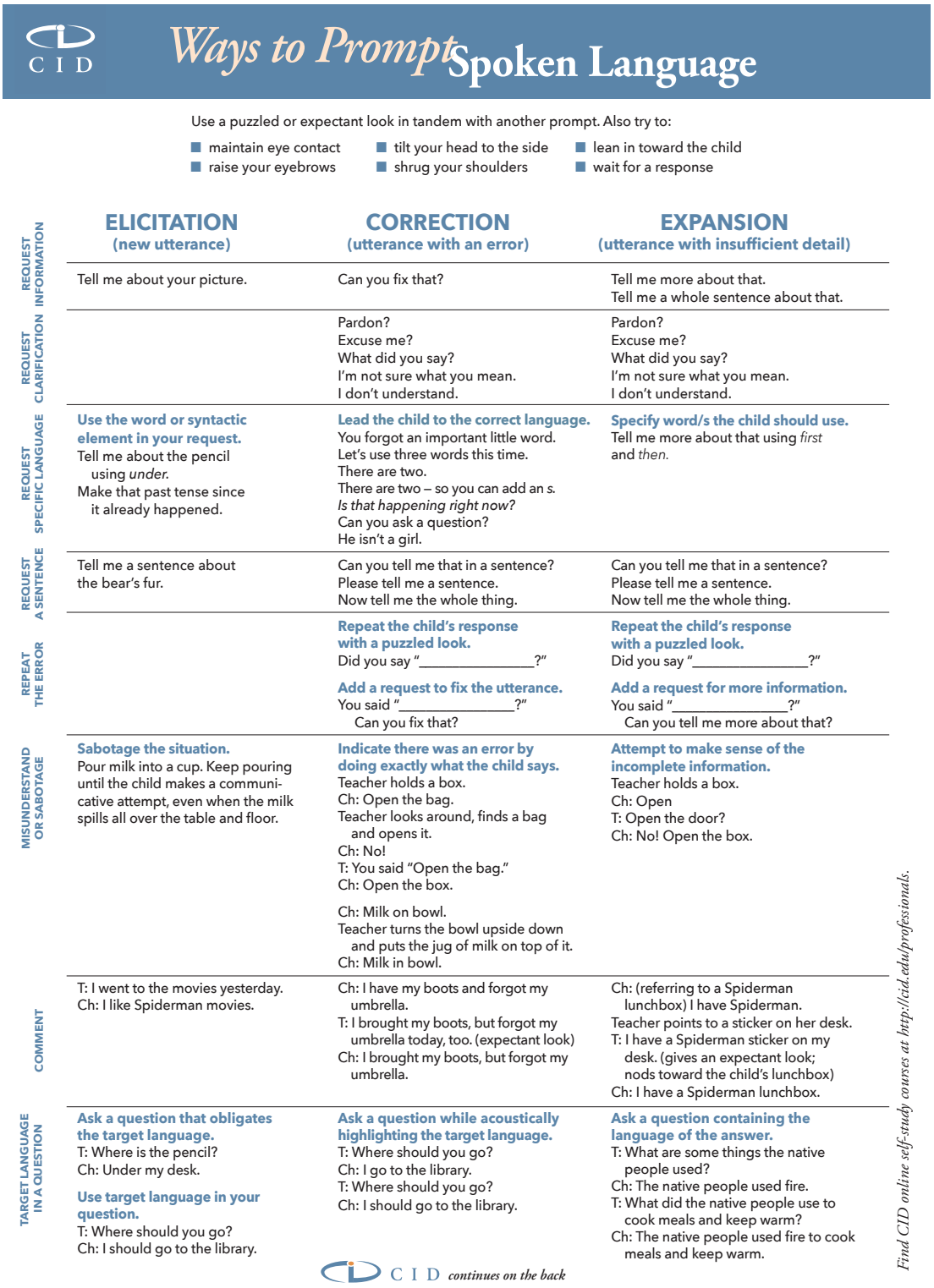
1	The teacher must use as many prompts as within reason to repeatedly achieve the full target utterance.
2	The teacher must recast or repeat the target again, so the child has another chance to hear the correct production.

For additional LSL teaching behaviors, please see the *Listening & Learning to Talk* chapter.

Framework for Successful Language Instruction for a Diverse Group of Learners

Quality preschool LSL programs may differ in appearance, culture, staff, and other factors. Yet they all include a standard framework for providing instruction. These factors are shown in *Table 7*.

Figure 1
Ways to Prompt Spoken Language



CID

Ways to Prompt Spoken Language

Use a puzzled or expectant look in tandem with another prompt. Also try to:

- maintain eye contact
- raise your eyebrows
- tilt your head to the side
- shrug your shoulders
- lean in toward the child
- wait for a response

	ELICITATION (new utterance)	CORRECTION (utterance with an error)	EXPANSION (utterance with insufficient detail)
REQUEST INFORMATION	Tell me about your picture.	Can you fix that?	Tell me more about that. Tell me a whole sentence about that.
REQUEST CLARIFICATION		Pardon? Excuse me? What did you say? I'm not sure what you mean. I don't understand.	Pardon? Excuse me? What did you say? I'm not sure what you mean. I don't understand.
REQUEST SPECIFIC LANGUAGE	**Use the word or syntactic element in your request.** Tell me about the pencil using *under.* Make that past tense since it already happened.	**Lead the child to the correct language.** You forgot an important little word. Let's use three words this time. There are two. There are two – so you can add an *s.* *Is that happening right now?* Can you ask a question? He isn't a girl.	**Specify word/s the child should use.** Tell me more about that using *first* and *then.*
REQUEST A SENTENCE	Tell me a sentence about the bear's fur.	Can you tell me that in a sentence? Please tell me a sentence. Now tell me the whole thing.	Can you tell me that in a sentence? Please tell me a sentence. Now tell me the whole thing.
REPEAT THE ERROR		**Repeat the child's response with a puzzled look.** Did you say "_____?" **Add a request to fix the utterance.** You said "_____?" Can you fix that?	**Repeat the child's response with a puzzled look.** Did you say "_____?" **Add a request for more information.** You said "_____?" Can you tell me more about that?
MISUNDERSTAND OR SABOTAGE	**Sabotage the situation.** Pour milk into a cup. Keep pouring until the child makes a communicative attempt, even when the milk spills all over the table and floor.	**Indicate there was an error by doing exactly what the child says.** Teacher holds a box. Ch: Open the bag. Teacher looks around, finds a bag and opens it. Ch: No! T: You said "Open the bag." Ch: Open the box. Ch: Milk on bowl. Teacher turns the bowl upside down and puts the jug of milk on top of it. Ch: Milk in bowl.	**Attempt to make sense of the incomplete information.** Teacher holds a box. Ch: Open T: Open the door? Ch: No! Open the box.
COMMENT	T: I went to the movies yesterday. Ch: I like Spiderman movies.	Ch: I have my boots and forgot my umbrella. T: I brought my boots, but forgot my umbrella today, too. (expectant look) Ch: I brought my boots, but forgot my umbrella.	Ch: (referring to a Spiderman lunchbox) I have Spiderman. Teacher points to a sticker on her desk. T: I have a Spiderman sticker on my desk. (gives an expectant look; nods toward the child's lunchbox) Ch: I have a Spiderman lunchbox.
TARGET LANGUAGE IN A QUESTION	**Ask a question that obligates the target language.** T: Where is the pencil? Ch: Under my desk. **Use target language in your question.** T: Where should you go? Ch: I should go to the library.	**Ask a question while acoustically highlighting the target language.** T: Where should you go? Ch: I go to the library. T: Where should you go? Ch: I should go to the library.	**Ask a question containing the language of the answer.** T: What are some things the native people used? Ch: The native people used fire. T: What did the native people use to cook meals and keep warm? Ch: The native people used fire to cook meals and keep warm.

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Figure 1 (continued)

CID CENTRAL INSTITUTE FOR THE DEAF *Ways to Prompt Spoken Language (continued)*

	ELICITATION (new utterance)	CORRECTION (utterance with an error)	EXPANSION (utterance with insufficient detail)
RECAST		**Repeat the utterance but replace the error with the correct language. Consider acoustically highlighting the corrected word/s.** Ch: She has more shoes. T: She has new shoes. Ch: She has new shoes. T: Yes, she has new shoes.	**Repeat the utterance, but provide information that was missing. Consider acoustically highlighting the corrected word/s.** Ch: She has shoes. T: She has new shoes. Ch: She has new shoes. T: She has new shoes.
USE IMITATION MODELS	**Reduction model*** T: I want to … Ch: I want to… T: erase the board. Ch: erase the board. T: Tell me that all together. Ch: I want to erase the board. **Complete model** T: I want to erase the board. Ch: I want to erase the board. **Use reduction models in two chunks – no more and no less.*	**Reduction model*** Ch: I want wash board. T: I want to … Ch: I want to… T: erase the board. Ch: erase the board. T: Now tell me all of that. Ch: I want to erase the board. **Complete model** Ch: I want wash board. T: I want to erase the board. Ch: I want to erase the board. **Partial model** Ch: I want wash board. T: I want to… (expectant look) Ch: I want to erase the board.	**Reduction model*** Ch: Erase. T: I want to … Ch: I want to… T: …erase the board. Ch: …erase the board. T: Tell me the whole thing. Ch: I want to erase the board. **Complete model** Ch: Erase. T: I want to erase the board. Ch: I want to erase the board. **Partial model** Ch: Erase. T: I want to… (with expectant look) Ch: I want to erase the board.
POINT	**Point to an object/picture for the child to label.**	**Point to indicate an incorrect word.** Teacher puts a baby under a chair. T: Where is the baby? Ch: On the chair. Teacher points under the chair with a puzzled look. T: Where is the baby? Ch: Under the chair.	**Point to indicate a missing word.** Teacher puts a baby under a chair. T: Where is the baby? Ch: Baby chair. Teacher points under the chair with a puzzled look. T: Where is the baby? Ch: Baby under chair.
USE PRINT	**Point to target language on a paper or the board.**	**Write an elliptical sentence on paper or the board.** Ch: Bears hibernate on winter. Teacher writes *Bears hibernate* ___ ____ *winter.* and asks the child to correct his utterance by filling in the correct words. Ch: Bears hibernate *in the* winter.	**Write an elliptical sentence on paper or the board.** Ch: Bears hibernate. Teacher writes *Bears hibernate in the* _____. and asks the child to expand his utterance by filling in the correct word. Ch: Bears hibernate in the *winter.*
WITHHOLD MATERIALS	**Withhold materials until the child makes a communicative attempt.** Place materials in a bag and look in the bag excitedly.	**Withhold materials. Provide a corrective prompt until the child uses the target utterance.** Ch: Cookie. T: I want… (withholds cookie, uses expectant look) Ch: I want cookie. Teacher gives the child a cookie.	**Withhold materials. Provide an expansion prompt until the child uses the target utterance.** Ch: I want cookie. T: I want more cookies. (withholds cookie, uses expectant look) Ch: I want more cookies. Teacher gives the child a cookie.
USE KINESTHETIC MARKERS	**After a verbal elicitation prompt, use a physical marker to indicate the number of words expected.** Hold up three fingers. Provide a complete verbal model. Point to the first finger and say the first word, to the second finger and say the second word, etc.		**After a verbal expansion prompt, use a physical marker to indicate the number of words expected.** If the child produced only two of the three words in the target utterance, hold up three fingers. Provide a complete verbal model. Point to the first finger and say the first word, to the second and say the second word, etc.
USE MOUTH SHAPES	**Make the mouth shape of the initial sound of the target language before child has produced the utterance.** Child reaches for more cookies. Teacher makes an /m/ mouth shape for *more* and holds a cookie next to her mouth. Ch: More.	**Make a mouth shape while the child is correcting an utterance.** Ch: Cow is on barn. T: The cow is *behind* the barn. (acoustically highlights *behind)* Ch: The cow is… Teacher makes a /b/ mouth shape. Ch: … behind the barn.	**Make a mouth shape while the child is expanding an utterance.** Ch: I want cookies. T: I want *more* cookies. (acoustically highlights *more)* Ch: I want… Teacher makes an /m/ mouth shape. Ch: … more cookies.

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Table 7
Standard Framework for Preschool LSL Programs

Keep Children Safe	Adjust Lesson Activities & Goals	Know Present Levels of Students
The number one goal for all preschool staff is to protect the children entrusted to their care.	Based on student interest and motivation. When preschoolers lose interest, the lesson stalls, and the learning stops. Yet when children are motivated, they remain engaged and attentive, which leads to more learning.	A student's present levels are the foundation for his or her instruction. Teachers must have a good understanding of the child's abilities in his or her delayed areas of development. These levels are the jumping off point for instruction.
Ensure Access to Sound	**Create a Quality Listening Environment**	**Create a Language-Rich Environment**
To learn to listen and talk effectively, preschoolers with hearing loss must wear their hearing devices during all waking hours. All day. Every day. No breaks (except for sleeping and bathing or water play if devices are not waterproof; White & Voss, 2015). Preschoolers should have optimal access to sound at all times, so appropriate and regular audiologic management is essential. Teachers must constantly ensure their students have appropriate access to sound by performing device checks and through the use of Ling checks. Issues with devices or responses to sound should be reported and alleviated immediately.	First and foremost for classrooms, this includes minimizing background noise and promoting the sound of meaningful talk. Background noise can be created in numerous ways in a classroom from functional sounds, such as radiators, fans, and humming of lights, to people-generated sounds, such as chatter, chairs moving across the floor, playing, laughing, and crying. Quality listening environments promote the sound of talk directed to the child and decrease the amount of competing noise.	The preschool environment should be filled with rich, robust, interesting, descriptive, and thought-provoking language. Teachers and all professionals create a language-rich environment by using language that is detailed and repetitive but interesting throughout the day. Preschoolers need practice listening to lots of language—most importantly the language that describes the world around them, including their activities, interests, belongings, work, play, and feelings.

Photo courtesy of John Tracy Clinic

Table 7
(continued)

Use a Continuum of Language Instruction with Varied Settings

Includes structured, conversational, and natural language lessons. The daily schedule should be strategically designed to give preschoolers an opportunity to learn in settings that vary in the amount of structured teaching. The most direct and contrived language periods are structured language lessons, which many preschoolers with hearing loss require to learn new vocabulary and syntactic skills. Structured language lessons are direct, contrived, repetitive, and overt lessons that focus on repeated prompting of vocabulary and syntax targets. The natural setting for instruction is the typical preschool period called *developmental learning centers*, which is the least structured and most natural. The conversational language period is designed as a stepping-stone for practicing language learned in structured lessons before using it proficiently in natural settings. Within each of these settings, a teacher can individualize instruction for each of the different children within that setting. This continuum is designed to promote carryover of skills from one setting to the next; thereby increasing preschoolers' facility using skills learned and practiced in each setting. For more information on the continuum of language instruction, see *Language Curriculum* in this chapter.

Purposefully Plan the Number of Children in a Group

Structured language lessons should include one child or two like-learners. Conversational language lessons should include at least two children—so they can have a conversation—but a maximum of five-to-six—so there aren't too many talkers engaged in the conversation to be practical. Natural language lessons, such as centers, should include a large group of preschoolers similar in size to a typical preschool classroom. This gives preschoolers with hearing loss a chance to practice their language in an authentic preschool setting.

Appropriately Group Like-Learners for Structured Lessons

Because it is common for preschoolers with hearing loss to exhibit a wide range of diversity in their listening, language, and speech abilities, a method for individualizing instruction for each student is essential. Specific grouping and scheduling techniques allow for this. For explicit, structured language lessons—direct, contrived, repetitive, and overt lessons that focus on repeated prompting of vocabulary and syntax targets—students might receive individualized, one-on-one instruction. Alternatively, two students can be grouped together if they are like-learners who are learning to understand and use language at about the same level. In addition, the students in these groupings should be relatively close in age, so that the instruction can be appropriate for the developmental level.

Understand Typical Development for Same-Age Students

Teachers must be very aware of typical listening, language, and speech skills for preschoolers to effectively target these skills in lessons. Many resources exist that contain developmental milestones. (For a complete list of listening, language, and speech skills for young children, see *Chapter 13* of *Small Talk*, https://cid.edu/professionals/shop/small-talk-bringing-listening-and-spoken-language-to-your-young-child-with-hearing-loss/; White & Voss, 2015).

Table 7
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Understand & Use the Zone of Proximal Development (ZPD)		
This is the level of learning a person can achieve with help and/or instruction. Teachers use the ZPD to promote learning by encouraging children to function just above the level of their ability but not so far above their level of ability that they couldn't possibly succeed (Suskind, 2015). For more information on the Zone of Proximal Development, please see the *Listening & Learning to Talk* chapter.		
Create Lesson Objectives		
Based on the skills these students need to be more successful at play. The most efficient way to know that preschoolers truly carry over skills they learn during direct instruction is to observe the use of those skills during their play. This can include all developmentally appropriate skills, but most notably, listening, language, and speech skills. When direct instruction lessons are designed to foster skills used during play, children have the advantage of learning those skills through direct instruction and then later, practicing them during their play, with teacher support, if needed.		
Know When the Child Has Successfully Mastered a Target		
Then promptly move on. Though review is a good thing, teachers must not spend time providing direct instruction of skills a child has already mastered.		
Constantly Teach Vocabulary		
Start with real objects and actions, then pretend objects, then real photos of objects/actions/descriptors, then cartoon-like pictures of objects/actions/descriptors. Teach vocabulary in structured settings, during conversations, before and during read-alouds, walking to and from the classroom, in the lunchroom, at recess, walking to the bus, and every other time of the day. Preschoolers must know the vocabulary of the world around them, and teachers can use every possible opportunity to teach it.		
Use Specific Pacing	**Know When Children Need Gross Motor Activity**	**Carry Over Listening, Language, Speech, & Concepts**
That allows for the following: • Accomplish the lesson objective . . . • in the amount of time you have . . . • while keeping the students engaged and successful.	Preschoolers in particular need time to move their bodies. Direct, structured instruction in a chair or at a table can be counterintuitive for a young child, especially for prolonged periods of time. It is typical for a preschooler to need to move. Listening, language, and speech instruction can include gross motor movement if and when necessary.	Children learn best through context and exploration. Allow for themes to tie into one another, so children can learn how concepts are related and practice the same language in a number of different contexts. For example, the language and concepts related to the *doctor* theme is closely related to that of the *pets and vet* theme.

Table 7
(continued)

Base Instruction on Experiences

There are two main methods for learning in preschool: through experiences (experience-based learning) and by being exposed to concepts that are not possibly experienced in preschool (abstract learning). Experiences include participation in actual real-life activities, such as gardening, baking, or digging for worms. Abstract learning includes learning about something not experienced in preschool, such as the beach or outer space, through conversations, books, magazines, video, and/or pictures. For typically developing preschoolers, experiences are key to developing the knowledge, understanding, and language associated with their immediate environment and lives. Typically developing preschoolers learn to understand their environment and use language appropriately by simply "experiencing" events that are standard in their lives. For preschoolers with hearing loss and resultant language delay, experiences are not only critical for exposing them to aspects of their world, but more importantly, experiences serve as the foundation for remediative language instruction. Experiences and their related activities provide the building blocks for improving understanding of these events, improving comprehension of the vocabulary and language that goes with these events, and improving expressive vocabulary and language related to these events. Teachers often choose to use an experience set to teach the concepts and language related to an experience. The experience set includes:

- Activity I. Pre-Experience Activity
- Activity II. The Experience
- Activity III. Post-Experience Activity
- Activity IV. Play or Conversation Activity

Provide a Specific Schedule That Targets All Areas of Development

Though the times and order of periods in the day may differ among preschool program schedules, the components of the schedule are generally the same. The schedule for a LSL preschool must include periods of direct instruction for the areas of delay resulting from hearing loss—auditory, language, speech, and early literacy. In the sample schedule below, note the balance between these specific areas, along with a number of natural learning opportunities typical of preschool programs in general.

8:25 - 8:35	Welcome & Device Check	
8:35 - 9:00	Circle Time	
9:00 - 9:30	Structured Language	
9:30 - 10:00	Gym	
10:00 - 10:45	Snack & Conversational Language	
10:45 - 11:30	Developmental Learning Centers	
11:30 - 12:00	Lunch	
12:00 - 12:45	Recess	Nap
12:45 - 1:30	Early Literacy	
1:30 - 1:40	Music	
1:40 - 2:05	Speech & Auditory Training	
2:05 - 2:30	Story Time & Small-Group Activity	
2:30 - 2:50	Recess	
2:50 - 3:00	Closing Circle Time & Dismissal	

Play

Play is one of the most important activities a preschooler does during the day. Children learn through play. They learn about themselves and their bodies as well as their thoughts, feelings, and abilities through play. They learn about the world through play. They learn about other people through play. Play allows children to develop every single category of age-appropriate skills:

Cognitive	Preacademic
Listening	Gross Motor
Language	Fine Motor
Speech	Social
Problem-Solving	Creativity
Literacy	

No longer is play thought of as a break from teaching and learning. While engaged in play, teachers can model play skills and language and encourage preschoolers to use these skills too.

The Importance of Pretend Play

By the time typically-developing children are about 5 years old, they're able to integrate the skills required for many kinds of play—such as associative, cooperative, symbolic, and dramatic—to then participate in pretend play. Pretend play is the ability to represent familiar experiences with many steps in the correct sequence and to re-enact events with new outcomes. It includes role-playing and requires a significant amount of world knowledge—or knowledge about how things are. Pretend play requires children to have certain cognitive and language skills. Each action in the play is in response to the other players, yet the play follows specific rules about the role of each character. Pretend play also includes goals toward which children work as they engage in play together.

In a doctor/patient play scenario, one child plays doctor while the other plays patient. The doctor follows the rules of play by acting out specific doctor behaviors—she feels the patient's forehead, looks at the patient's throat, gives the patient a shot, tells the patient to take some medicine, and sends the patient home. The patient follows the rules of play by acting out specific patient behaviors—she enters the office acting ill, tells the doctor her symptoms, lies on the doctor's table, says "ouch" when she gets a shot, and thanks the doctor as she leaves. The goal of this play may be that the patient is treated and feels better after her visit to the doctor.

Preschoolers who are truly able to use pretend play can alter the events in the scenario while continuing to follow the rules and work toward the goal. If the children mentioned above were to switch roles, the patient might tell the doctor her ankle hurts. The doctor would then examine her ankle, tell her it's broken, and put a cast on it. The patient would thank the doctor and limp out of the office. These children are able to consider events associated with a doctor/patient scenario, act out the events in the correct order, and in future play using this same schema alters the events to create new outcomes. Both children work toward the goal of making the patient's ankle better.

Play is one of the most important activities a preschooler does during the day. Children learn through play.

Beyond real-life experiences, children who engage in pretend play also can re-enact events they didn't actually experience but learned about from someone else or through books or other media. For example, children often act out the events of a story like *Goldilocks and the Three Bears*. They might pretend to be astronauts who take a space shuttle to the moon, walk around on various planets, and interact with aliens. They might pretend to be cavemen who live among dinosaurs. These are obviously not experiences they've actually had, but through books, television, movies, and other experiences on these topics and the associated events, they can use their language skills, play skills, and imaginations to create scenarios that follow rules and work toward common goals.

Relationship Between Language & Play

By definition, language is a formal set of symbols and rules. It is very abstract. Language requires a person to mentally store and retrieve the words for objects, actions, and descriptors in addition to the rules for combining those words. Language itself is a symbol. Similarly, symbolic play requires a person to represent one thing with something else, such as when using a banana to represent a phone, using a miniature toy horse to represent a real horse, or even

zooming a little block through the air like an airplane. Both language and play require a person to be able to mentally represent reality (Westby, 2000). Therefore, the relationship between language and play is close and symbiotic.

Symbolic play is a prerequisite to learning language. A child must be able to represent reality with symbols before she can learn to use language. Once a child can represent reality with symbols, she is ready to learn language as a set of symbols. Then as the child develops language skills, she also prepares to use pretend play. When a child engages in pretend play, she is using symbols—toys, miniature objects, her imagination—to represent reality. Pretend play can develop only so far without specific language skills.

Play skills and language skills work like rungs on a ladder. The ladder represents success at play and language. Every other rung of the ladder represents language skills, and the other half of the rungs represent play skills. For a person to move one hand to a "language skills rung" on the ladder, she must have a solid grip with the other hand on the "play skills rung" right below. Then she has to have a solid grip on that "play skills rung" before she can move up to the next rung—"language skills rung." Children build up to high-level play and language skills by working their way up from low-level play and language skills. Language and play skills are acquired in an alternating fashion. Children who don't have age-appropriate play skills usually don't have age-appropriate language skills. Children who don't have age-appropriate language skills usually don't have age-appropriate play skills.

Symbolic play is a prerequisite to learning language. A child must be able to represent reality with symbols before she can learn to use language.

Relationship Between Play & Language Skills for Children with Hearing Loss

The relationship between play and language skills is particularly crucial for children with hearing loss learning to listen and talk. If a child's play skills are delayed, you can expect his or her language skills to also be delayed. If a child's language skills are delayed, it's possible that his or her play skills might be delayed. Many people assume children's play skills just happen, because children are naturally curious and motivated by toys. In the same way children with hearing loss don't learn spoken language as readily as children with typical hearing, children with hearing loss often don't understand or pick up on the intricacies of real-life events as thoroughly as children with typical hearing do. Pretend play requires a child to have a good, solid understanding of experiences and the language that goes with those experiences. For this reason, it's imperative for professionals working with young children with hearing loss to monitor both language progress and play skill development. One area cannot develop fully without the other.

Relationship Between Play, Language, & Literacy Skills

Language and literacy skills are very closely related, and language and play skills are very closely related. Therefore, it makes sense that play skills are closely related to literacy skills as well. The use of language, the social interaction of play, and the ability to read require a child to have the prerequisite skills listed in *Table 8*.

Language & Play for Children with Hearing Loss

For some children with hearing loss, symbolic play skills are well developed by age 3. These children then must specifically learn the vocabulary and language required to engage in that play with others (see *Table 9*). Other children with hearing loss have delayed play skills. For these children, the first order of business is to practice early play that doesn't require language. They need early play skills before they can learn the language and vocabulary to be successful in more complex play.

Teacher-Modeled Play

For some preschool teachers, the concept of playing with students is second nature. For others, their students play with one another, but the teacher herself if rarely involved in the play. When teachers play with preschoolers, they can provide a necessary and important model of vocabulary, language, and play skills important to the play scene. They can also prompt students to use the vocabulary, language, and play skills taught during direct instruction.

Table 8
Prerequisite Skills for Language, Play, & Literacy

Mental Models

A mental model is a person's thought process about an event or series of events. Pretend play requires a child to represent people, objects, and experiences with symbols. A mental model is needed to picture in one's mind the people, objects, and experiences before they can be recreated with symbols. Similarly, understanding a story read from a book requires a child to build in his or her mind a representation of the situation described in the text (Cain & Oakhill, 2007).

Episodic Memory

Episodic memory is memory of experiences and the series of events that make up that experience. It is the ability to picture an experience in one's mind and tap into that memory when talking about it. It requires a person to relate the present moment to something that already has happened as well as something that could happen in the future (Tulving, 1993). Episodic memory is required for telling stories, recognizing relationships, understanding cause and effect, making predictions, and making inferences. Episodic memory can be developed through play, which gives children a rehearsal of the experience (Westby & Wilson, 2008). Promoting episodic memory skills can be done using the following procedures:

1	Have an experience.
2	Talk about the experience.
3	Discuss feelings about the experience to tap into emotional states that support memory.
4	Act out the experience. This helps develop memories of events.

Theory of Mind

Ability to understand that others have beliefs, desires, and intentions that are different from one's own. This ability can be developed through pretend play when a child takes on a character and acts the way that character would act (deVilliers, 2005; Gopnik & Astington, 1988; Westby & Wilson, 2008).

Metacommunicative Strategies

Cues indicating how language should be interpreted. They include intonation, facial expressions, and gestures. For example, saying, "That's a nice shirt," with an excited intonation is different from saying, "That's a nice shirt," with a sarcastic intonation.

Decontextualized Language

Language that conveys meaning by using only grammar and vocabulary. Using decontextualized language effectively requires the ability to provide enough appropriate language for another person to understand without background knowledge or contextual clues, such as intonation, facial expressions, or gestures. Children must understand decontextualized language to comprehend written text. Text requires the reader to understand the details through language alone. In addition, children must be able to use decontextualized language to provide high-level and abstract details in their spoken language (Curenton & Justice, 2004; Westby & Wilson, 2008).

Metalinguistic Language

Language used to tell about language. For example, "He said . . ." or "She told me to . . ."

Metacognitive Language

Language for telling what one is thinking. For example, "I know . . ." "I wonder . . ." or "I'm thinking that . . ."

Table 9
Language Requirements for Typical Preschool Play Skills

Appropriately Plays with Toys Designed for Preschool-Aged Children

Examples . . .

Drives little vehicles around a toy garage, airport, or train set.	Though some preschoolers may have language-based thoughts during this play, production of language is not required.
Feeds a doll with a bottle; holds, burps, rocks, and dresses a doll.	
Builds structures with blocks.	
Completes puzzles.	

Understands Preschool Concepts through Experiences

Play skills require children have many "experiences" in their lives. Experiences include everything a child sees and does everywhere she goes. Experiences include baking, cooking, doing laundry, raking leaves, riding in a car, washing a car, bathing, shopping, eating at a restaurant, building things, gardening, going to the zoo, and so on. Experiences allow children to learn about and understand their world.

Examples . . .

Understands the steps to washing a car.	Language is not required but is helpful. Typically developing preschoolers have language at this stage.
Knows the parts of a car and general location of parts.	
Knows the steps in washing a baby.	
Knows the steps in taking a baby on a walk.	

Pretends Real-Life Experiences

Pretending real-life experiences requires that a child actually has the experiences, some understanding of the basic concepts associated with them, and the ability to talk about the play scene.

Examples . . .

Pretends to drive a car.	Language is required.
Pretends to bake a cake or make dinner.	
Pretends to be a passenger or ticket collector at a train station.	
Pretends to hail a taxi to the airport and get on an airplane.	
Pretends to be a schoolteacher or student.	
Pretends to be a waitress or restaurant patron.	

Including Problems in Play

One of the most effective strategies for facilitating play is to create a play problem. Students involved in play then have the task of acknowledging the problem and cooperatively finding a solution with their playmates. Play problems work particularly well within themes that allow for an authentic and meaningful experience. After the experience, teachers can set up a dramatic play scene that allows students to replicate the experience in play. A teacher can then present a problem and facilitate the play as the students work to solve the problem. Some examples of experiences with problems are shown in *Table 10.*

Quality LSL preschool programs can differ in many ways; yet they each have the goal of promoting preschoolers' ability to listen and talk. The general framework and standard programming components of these programs allow them to meet their mission to build LSL skills in young children with hearing loss within the context of play and experience-based learning. The framework and programming components provide a strong foundation upon which educators can use their good teaching skills to develop each child to his or her full potential.

Quality LSL preschool programs can differ in many ways; yet they each have the goal of promoting preschoolers' ability to listen and talk.

Table 10
Examples of Experiences with Problems in Play

Experience	Symbolic/Pretend Play	Play Problem
A baby comes to school.	Playing house with babies.	The baby is crying.
Going to the apple orchard.	Pretending to pick apples from a tree.	Our bag is empty, and we need to fill it with apples. We need apples to make apple pie.
Baking a birthday cake.	Pretending to bake a birthday cake.	We need to find the ingredients.

Suggested Resources

Cole, E., & Flexer, C. (2011). *Children with hearing loss: Developing listening and talking, birth to 6.*
Suskind, D. (2015). *Thirty million words.*
White, E. (2014). *Teacher assessment of grammatical structures.*
White, E., & Voss, J. (2015). *Small talk: Bringing listening and spoken language to your young child with hearing loss.*

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