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ABSTRACT

This paper discusses factors that influence deaf and hard of hearing children's spoken English development. It addresses philosophical and practical issues related to maximizing these children's communication with the hearing majority within an educational environment that capitalizes on American Sign Language as a fully accessible language for classroom instruction. Identified factors involved in spoken English development include amount of residual hearing, amplification, language competency, family support, and intelligence level. Looking at the question of sign language or speech, the paper supports keeping the two languages separate (like other bilingual children) in contrast to the popular "simultaneous communication" method. The importance of maintaining realistic expectations is stressed with 11 questions to help parents set realistic goals. Examples are given of use of the two basic bilingual education strategies: (1) having specific people use each language; and (2) designating specific times, settings, or circumstances for each language. Also discussed are acquiring spoken English through natural interaction, learning spoken English through teaching and practice, and communication in the community. (Contains 16 references.) (DB)

Gallaudet University Laurent Clerc National Deaf Education Center

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Sharing Ideas

The Laurent Clerc National Deaf Education Center's (formerly Pre-College National Mission Programs) "Sharing Ideas" series is comprised of working or occasional papers and videos of interest to parents and teachers of deaf and hard of hearing children, researchers, school administrators, support service personnel, and policy makers. Works in the series are often prepared for a specific 'occasion,' and include papers, presentations, or final reports that address a need in the field or contribute to the growing body of knowledge about educating deaf and hard of hearing children. The intent of the series is to act as a clearinghouse for sharing information from a number of sources.

These widely disseminated papers cover a broad range of timely topics, from describing innovative teaching strategies to reviewing the literature in an area of inquiry to summarizing the results of a research study. In every case, there is a common focus: improving the quality of education for children who are deaf or hard of hearing. The Clerc Center welcomes feedback about the concepts presented, particularly in the case of 'working papers,' which often represent works in progress or express the views or experiences of an author.

Researchers, graduate students, parents, and teachers are encouraged to send proposals for review and possible inclusion in the Sharing Ideas series. Submissions to the series are reviewed by content experts before acceptance for publication as Clerc Center products.

About the Author

After receiving a Bachelor's degree in Psychology from the University of Delaware, Sharon Graney spent four years volunteering and substitute teaching at Sterck School, Delaware School for the Deaf. During those years she worked in a variety of capacities, including high school teacher, teacher of deaf-blind students, interpreter, and preschool teacher. These varied experiences helped her gain valuable knowledge about deaf and hard of hearing children, ASL, and deaf culture.

Ms. Graney returned to school and earned her Master of Science degree in Speech-Language Pathology from Gallaudet University in 1991. She completed her Clinical Fellowship at South Carolina School for the Deaf and Blind. Ms. Graney currently works with deaf and hard of hearing children in the preschool and elementary departments at Delaware School for the Deaf. She has made presentations on the role of speech in an ASL/English bilingual curriculum at several college courses and conferences, including Gallaudet University's "Especially for Parents: Everything you always wanted to know about bilingual education but were afraid to ask," and at the Convention of American Instructors of the Deaf.

Ms. Graney believes in looking at the whole deaf or hard of hearing child, and is actively involved in several extra-curricular programs. She is currently head basketball coach of the girls basketball team and Athletic Director at Delaware School for the Deaf.

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Where Does Speech Fit In? Spoken English in a Bilingual Context

"Is He Still Talking?"

J. is a 10-year-old boy with a progressive hearing loss. Prior to coming to Delaware School for the Deaf, he was educated in a public school classroom. His articulation skills were well-developed, but his English language development was delayed. It was obvious he was accustomed to working very hard—using context and guess work—to figure out what was going on around him. J. learned sign language very quickly. He is now able to use American Sign Language (ASL) in addition to English to access information and express himself.

But..."Is he still talking?" This was the first question the speech-language therapist from his former placement asked me when we met recently. Her concern represents a common misconception that children exposed to American Sign Language (ASL) will not develop or will not continue to use their spoken English skills. It is my experience that the opposite is true. When a deaf or hard of hearing child develops a solid language base through natural timely acquisition of signed language, this competence—and the child's growing experience of how language works—can be used to support the task of learning the less accessible spoken language. This does not imply that all deaf and hard of hearing children can and will develop fully functional spoken English skills; however, given a strong first language combined with meaningful exposure to a second language through face-to-face interaction and emerging literacy, each child's communication skills can be maximized.

This paper will discuss some of the factors that influence deaf and hard of hearing children's spoken English development. It will discuss a number of practical and philosophical issues related to maximizing deaf and hard of hearing children's com-

munication with the majority within an educational environment that capitalizes on ASL as a fully-accessible language for classroom instruction. The purpose of this paper is not to give a step-by-step guide to teaching spoken English skills, but to begin to establish a framework for assessing and developing each individual's communication skills.

Current trends in the education of deaf and hard of hearing children have opened new possibilities for innovative and effective ways to promote spoken English development. By appreciating the cultural identity of each child and capitalizing on his or her linguistic strengths, educators can better support their students' understanding of and proficiency in the majority language, therefore allowing the child to succeed academically (Cummins, 1986). A speech-language therapist who holds this perspective can help to foster a communicative process that includes spoken and written English as well as American Sign Language. Collaboration with classroom teachers, consultation with deaf and hard of hearing professionals, and utilization of the child's family and community for meaningful experiences—these are a few of the important components in developing a child's full linguistic potential without sacrificing academic achievement or social-emotional well-being.

Factors Involved in Spoken English Development

There is no such thing as a homogeneous group of deaf or hard of hearing children. Each child's ability to develop spoken English skills is influenced by a variety of factors. In my opinion there are two major prerequisites: biological potential and an intrinsic motivation or interest. Factors related to potential and motivation for a deaf or hard of hearing child can be broken down into several specific areas. These areas include: amount of residual hearing, benefit of amplification, consistency of hearing aid use, language competency, family support, intelligence, and attitude—both of the child and of the family.

Each of these factors (discussed below) plays a complex, interrelated role in the overall development of spoken English skills. No *one* factor determines the extent to which a deaf or hard of hearing child will develop intelligible spoken English skills. However, factors related to the degree of access the child has to the spoken English model are the most important. Children with limited access to the auditory part of speech and who are unable to use their hearing to monitor their own speech production have a truly challenging task ahead of them. While there are exceptions, those children with less auditory access to English tend to be less likely to develop functional spoken English skills.

While I consider the child's level of interest or motivation to be a separate factor, this variable is often influenced by the degree of access to auditory information, as that access makes the spoken language more engaging and meaningful. However, all things being equal from an access perspective, level of interest is a very real factor that can greatly affect a child's ability to develop spoken English skills—a factor that can be encouraged, but not forced. An analogy I use with parents is that of sports or music. If you have an interest in soccer or the piano, you may want your child to develop skills in these areas also. However, a child who has no natural ability or interest is not likely to develop significant skills. This is not to say that the child should not be encouraged to participate in sports or music, but that it should be done by exposing the child to the skill and encouraging regular but enjoyable practice, then letting the child's own aptitudes and interest determine to what extent this area of interest can realistically be fostered. Of course, many hearing parents' desire for their child to speak, and their hope for their child to interact easily with the hearing majority cannot be compared to their desire for the child to succeed in a sport. However, there are some very real parallels when looking at the child's intrinsic motivation to learn to speak.

Amount of Residual Hearing

The acuity of a child's hearing can be objectively measured and documented on an audiogram. However, when discussing auditory skills, it is important to note that an audiogram often does not reflect a child's functional abilities (Cramer and Erber, 1974). The audiogram provides information about how well a child can hear "pure tones." It does not indicate how well a child comprehends spoken language within or outside a communicative context. I have seen children with severe losses have more success with spoken English than children with moderate losses. (The exact reasons for this difference have not been documented but clearly seem related to the complex of factors discussed here.)

Amplification

Each child responds differently to amplification. A child's use of hearing aids may or may not provide enough benefit to allow full or even partial access to spoken English. For many children, hearing loss does not just weaken the auditory signal, it distorts sound as well (Plomp, 1978). To use an analogy, hearing aid use can be compared to a radio. Hearing aids can increase the volume of speech the child is hearing. However, if the incoming signal is full of "static"—in this case, distortion due to damage to the cochlea or auditory nerve—then the hearing aid may have little benefit. A student once told me, with more than a hint of sarcasm, that he liked his new FM system because it made the "buzzing" much louder. Hearing

aids can provide more auditory information by increasing the volume, but they do not necessarily increase comprehension of spoken English.

Cochlear implants provide auditory information by directly stimulating the cochlea. Although they may increase awareness of sound, their success rate in contributing to developing oral language skills has been minimal in children who had not already learned spoken English before their hearing loss (Crouch, 1997). It is critical to carefully consider all factors when contemplating irreversible attempts to amplify sound, such as implants.

In the final analysis, it is important to observe a child's behavior to determine how much benefit he or she is receiving from any form of amplification. It may be safe to assume that consistent use of amplification in meaningful settings for a child *who demonstrates benefit from amplification* is likely to have impact on his or her spoken English development.

Language Competency

One critical factor in speech development is language competency. For a deaf or hard of hearing child who has a solid base in ASL, spoken English development becomes an easier task. Deaf children of deaf parents often demonstrate a significant linguistic advantage in spoken English over deaf children of hearing parents (Geers & Schick, 1988). The deaf or hard of hearing child who already understands the world and is fully able to communicate his or her thoughts is more able and willing to learn the skills necessary to develop spoken language skills.

In addition, recent research (Strong & Prinz, 1997; Israelite, Hoffmeister, & Ewoldt, 1992) has demonstrated a correlation between ASL competency and English literacy. A deaf or hard of hearing child's knowledge of written English can be a valuable tool for developing competence in spoken English. As a deaf or hard of hearing child begins to read, he or she is able to make the connection between the printed and the spoken word, especially if the speech pathologist practices listening and speaking skills with stories or sentences that have meaning for the child while still modeling English structure. This visual reinforcement is very helpful for teaching the sound combinations in new vocabulary. Written English also provides a way for deaf and hard of hearing children to gain complete access to the structure of the language, providing a clearer model of English syntax than they are likely to get from the spoken signal. Knowing the structure of English is particularly important in speechreading, which involves filling in many gaps by predicting or guessing what cannot be heard or perceived on the lips. Therefore, the early lit-

eracy skills that develop when written stories are translated into ASL can also help to reinforce speech skills.

Family Support

Family support is vital not only for speech and language development but for emotional and cognitive development. A family that accepts their deaf or hard of hearing child and respects the child's visual and linguistic needs will help that child reach his or her maximum potential (Henderson & Hendershott, 1991). It has been my experience that if a child senses family support, interest, and acceptance in all areas, then he or she is more willing and able to tackle the often difficult task of learning spoken English skills. Children who experience this level of acceptance from their families tend to develop a more flexible and open approach to the communication process, rather than the sense of pressure or resentment that can develop when the entire focus seems to be on speech development. Given broad-based support and encouragement, children seem more likely to develop the underlying confidence necessary to become successful communicators. Such children are better equipped to negotiate difficult interactions that may require them to use trial and error in applying a variety of communication strategies.

Intelligence Level

A child's intelligence level alone is not a good indicator of ability to develop spoken English. Many intelligent deaf and hard of hearing adults do not develop spoken English skills, despite intense efforts. However, a child with aptitude in certain areas of intelligence may be able to make more sense of the distorted speech he or she perceives or may have greater ability to utilize other contextual cues in the environment. Young children are naturally inquisitive, and those whose language and cognitive development are supported early tend to view speech as just another interesting thing to learn. Over time, their understanding of the goals and their level of motivation may increase as they begin to see the potential applications in their later lives.

Sign vs. Speech?

If there are no concrete objective methods to predict the child's potential, then how can one determine whether a very young child will have the ability to develop spoken English skills? Traditionally, if parents wanted their child to develop speech skills, they were told not to use sign language with their child. After several

years of speech training, if a child did not succeed, then sign language could be taught as a back-up method.

Currently, sign language is widely used in the education of deaf and hard of hearing children (*American Annals of the Deaf*, 1997). However, there is still a strong belief that children who sign will not learn to speak, especially if they are exposed to ASL. The effects of this misconception can be devastating to the child's welfare. The opposite view is that a child should be primarily exposed only to sign language and that spoken English skills could be taught after the child has mastered his or her first language (ASL). With these either/or approaches, a child receives exposure to only one language, limiting the potential language development of the child. By placing a child in a bilingual environment that is truly sensitive to spoken language issues, one where the two languages are used in similar contexts but kept separate, parents and teachers have more information to determine what the child is capable of achieving.

Language development is one of the priorities of any early education program. Since access to spoken language is limited for a child who is deaf or hard of hearing, one way to provide full access to language is to use a visual language. Within the school day, as well as in their home environment, the children can also be exposed to spoken English in safe, predictable contexts. In this way they can be exposed to both languages separately during the course of everyday interactions. It then becomes possible to more clearly observe progress in each language, both expressive and receptive. When determining a child's potential to develop spoken English skills, it is important to follow the child's lead—to let the child help us determine where his or her abilities, preferences, and language input needs lie (Mahshie, 1995, 1997).

One natural question would seem to be, why not use both spoken English and signs at the same time? In fact, this premise is the basis for the popularly-used form of classroom communication known as simultaneous communication or "sim com." A number of artificially-developed sign systems based on English began to emerge in the 1960s, along with the hope that this would be the solution to many problems in deaf education. The purpose was to manually show English while speaking at the same time. It is not within the scope of this paper to discuss the theoretical and practical disadvantages of this method; there is an excellent discussion in chapter three of *Educating Deaf Children Bilingually* (Mahshie, 1995). However, I will note that, from my experience, students who are able to produce spoken English separate from signing are better communicators than students who attempt to speak and sign at the same time.

Keeping the languages separate allows deaf and hard of hearing children to function like other bilingual children. They are able to make decisions regarding the most appropriate mode to use in a given situation. Also, speech sessions that focus on spoken English rather than simultaneous communication allow the child to practice spoken English in a more realistic communication environment, with the goal of communicating with typical mainstream Americans—people who do not know sign language. Keeping the languages separate also helps clinicians and teachers to more accurately assess the intelligibility of the child's speech production without signed cues, and to better observe his or her comprehension of the spoken signal. In this way, children also begin to get a clearer understanding of when their speech is being understood and when it is not. Approaching the languages as they are—separate languages—enables the children to realistically assess their own abilities in each; it also contributes to overall communicative competency by helping children know when they need to develop alternative strategies.

Realistic Expectations

Spoken English development for deaf and hard of hearing children can range from full use of complex structures and varied vocabulary to the use of spoken or mouthed English words limited to specific situations. As discussed earlier, the question "Will my child learn to speak?" cannot be answered with a simple "yes" or "no." In addition to the factors discussed earlier that make it difficult to predict to what extent a child may develop speech, the answer to that question also depends on what parents mean—what they really expect—when they refer to their deaf or hard of hearing child's potential to speak.

It is important to understand that, despite what parents may want for their children, not every deaf or hard of hearing child will develop spoken English skills. Some will develop only basic functional skills. Others will be able to engage in a predictable, everyday conversation, but be unable to express or understand complex ideas in spoken English. Still others will have a fairly full range of oral language knowledge and skills, but will need to work very hard to fully comprehend the subtle nuances of each communication event. Spoken English simply may not play the same role in the lives of some deaf and hard of hearing speakers that it does for hearing persons. Some important decisions must therefore be made about how much time and energy a child will be asked to devote toward mastering this skill during the course of his or her education.

If too much emphasis is placed on speech development, the child's language and academic skills may suffer, not to mention self-esteem. Although intensive speech therapy may increase a child's articulation skills, it may also result in decreased ac-

demic performance. The hours of forced speech work that some deaf and hard of hearing children experience may not only take valuable time away from academic work or experiential learning (i.e. "learning about the world"), but leave a lasting emotional impact. Some children are turned off to practicing their speech because they are afraid to fail, or develop blocks in reception and production due to an internal "I can't do this" message. I have met numerous successful deaf and hard of hearing adults who told me, when they found out I'm a speech-language therapist, "I have lousy speech skills." Yet, I have never met an adult who told me, when they found out I am also a basketball coach, "I'm a lousy basketball player." The negative feelings of failure stay with a person when speech—which may be the most difficult thing a deaf or hard of hearing child is asked to master in his or her lifetime—is overemphasized. This over-focus has potential to negatively impact spoken English development.

It is natural for parents to want their child to talk. However, it is important to put that desire in perspective and to respect a child's natural abilities and tendencies. It is important for parents to get enough information to recognize the very real effects—especially for a child who has not yet learned language—of not having complete access to the auditory part of speech. Parents and professionals can work closely to take into account all of the factors discussed here, to realistically evaluate their child's skills, and to set feasible goals that support the development of the whole child. Whenever possible, professionals should include parents in evaluating a child's skills by discussing questions such as these listed on the next page. In this way, parents can not only contribute valuable insight and information, they can begin to determine for themselves how much spoken English potential their child has.

Investigating the Possibilities and Setting Realistic Goals: Questions for Discussion with Parents

Does your child:

- consistently respond to his or her name when spoken without signs?
- consistently respond to a *variety* of environmental sounds?
- increase his or her vocalizations when wearing hearing aids (initial use)?
- attend to your face when you are talking?
- anticipate sounds that you produce at predictable times (i.e. "boo" or "uh-oh")
- imitate mouth movements?
- imitate syllable patterns?
- imitate intonation?
- use sound combinations to mean specific words?
- spontaneously use single words?
- produce a question inflection spontaneously?

Using Bilingual Strategies

In order for any child to become bilingual, it is important that he or she receive meaningful exposure to two languages. For many hearing children, this happens naturally when there are two languages necessary for the child to negotiate his or her environment. However, for most bilingual children, a determined strategy must be implemented to provide full access to at least one language, or the child may be in danger of not fully developing either language. A number of different strategies can be employed, including designating specific people to use each language, setting specific times that each language is used, using one language in the home and one outside the home, or using both languages interchangeably.

Which of the above strategies would be effective in helping a deaf or hard of hearing child develop spoken English in addition to ASL? That answer will depend largely on the child's ability to access spoken language. In general, the two strategies that work well are: 1) having specific people use each language, and 2) designating specific times, settings, or circumstances for each language to be used.

In order to illustrate how the first strategy can work, let's look at a class of two- and three-year-olds at a school for the deaf. In this class there are six children, a deaf teacher, and a hearing teacher's assistant. The children come from a variety of backgrounds and have a variety of hearing losses. The primary language of the classroom is ASL; however, language use is tailored to individual needs whenever possible. Most activities are presented with ASL as the common language, as the goal is to make sure all children have full access to the information presented.

At center time, the children are free to move around the classroom deciding what activity they want to participate in. They may participate in such activities as the sand table, building blocks, or the dramatic play area. The teacher and the assistant interact with different children throughout the classroom.

The teacher has just finished playing with two students who are placing blocks one on top of the other and knocking them down when the speech-language therapist joins the class. The therapist—the designated spoken English model—goes over to the students and begins to play with them. As the blocks fall down she says "uh-oh" using visual (such as a voice light) and/or tactile (placing the child's hand on her throat) cues to encourage the children to imitate these sounds. One of the children knocks down the blocks again and approximates "uh-oh." The therapist later moves to another area where a little boy is playing with a doll. The boy puts the doll down and says "baby." The therapist responds by saying "the baby is sleep-

ing." "Sleep," copies the boy. A little later at the water table, the therapist makes her voice go from high to low as she pours water into a container.

As you can see in this example, the strategy used is to have two people using the two different languages. The children learn that the speech-language therapist is presenting auditory information and this information can be individually geared to the receptive and expressive skills of each child.

Interacting with the children in the classroom is often easiest with children of this age. A therapist can move around the room and engage children in activities that interest them and are tailored to their abilities. This also allows the teacher and therapist many opportunities to observe the children using both languages in natural contexts. As children become older, strategy two may be utilized more, as it maybe less disruptive to bring children to a separate area or room to work on spoken English. During these separate times, the therapist would be primarily using spoken English with sign explanations or visual cues as necessary. At home parents could also use the second strategy by setting aside specific times or predictable parts of each day to work on spoken English skills with their child.

As the children move into the pre-kindergarten and elementary years, I place them into three general groups depending on how much access they have to spoken English. In one group are the children who develop spoken English skills that, on the surface, appear similar to those of hearing children. Their auditory skills, with hearing aids, are sufficient to allow them quite a bit of access to spoken English. The needs of these children are very different from the needs of another group, which consists of children whose auditory access to English is more limited. They depend on speechreading, other visual cues, and tactile information to learn spoken English skills. The children in this second group do not naturally acquire speech skills; rather these skills must be taught, and the children will acquire them to varying degrees. Yet another group of children, due to profound deafness or some disability, will not easily develop any substantive spoken English skills. Time and effort are better spent developing speechreading and general communication skills.

These groups are distinctive not only in the way they develop spoken English skills but also in the way they will use these skills. Although they all share the goal of developing their communicative competence to their utmost potential, each of these groups requires a different strategy for presenting spoken English.

Acquiring Spoken English through Natural Interaction

A child in the first group discussed above might have the potential to develop almost as a bilingual child with strong spoken (as well as written) English and ASL skills. Their spoken English development is in a range that, on the surface, appears similar to that of hearing children but is usually delayed anywhere from six months to several years. Often the pronunciation and intonation patterns of children in this group will sound different from those of hearing children.

Some people may question why a child who can develop spoken English skills should be in a signing environment. As was discussed earlier, it is very difficult to predict how well a child will acquire English through the auditory channel when he or she is very young. We know that most deaf and hard of hearing children can fully acquire language through the visual mode, so it seems wise to provide them with a "sure thing" and not take chances when it comes to all-important early first language development. Research indicates that the brain does not discriminate between signed and spoken language as input for developing a first language, since both have the formal properties of language (Petitto and Bellugi, 1988). Therefore, a child who acquires ASL as his or her first language and is also able to acquire spoken English has lost nothing, as compared with the child who struggles to acquire spoken English through an insufficient auditory mode with no access to a visual language. This child may be in danger of achieving little competence in *any* language, or only a surface comprehension of spoken English. This surface competency is what Cummins (1980) refers to as "basic interpersonal communication skills" or BICS. The next level of language competency is what Cummins refers to as "cognitive/academic language proficiency" or CALP. A child needs to achieve this level of competency in order to form the base of knowledge upon which to develop cognitive and academic skills (Barnum, 1984).

In other words, spoken English, while sufficient for everyday face-to-face interaction for some deaf and hard of hearing children, may not serve the same function for exchanging complex, abstract information as the more deeply developed sign language competency can for a deaf or hard of hearing child.

If a child's spoken English skills do develop to a point there they can succeed in a public school setting without an interpreter, then he or she will still have the grounding in sign language to maintain contact with the deaf community. At our school, a number of our students were placed in public schools after their preschool years. Although it would be difficult to prove, it is my belief that these students greatly benefited from their early exposure to a visual language which provided a firm grounding for understanding their world and a link to English.

Clearly, this exposure did not prevent these students from continuing to develop their spoken English skills.

With this first group, spoken English can be promoted in much the same way as it would be for a hearing child. In our preschool, the speech-language therapists routinely borrow the books and materials that the classroom teacher is using and duplicate the activities using spoken English with the child. The goal is to present activities in either ASL or spoken English separately, so the child gets natural, comprehensible exposure to both. The classroom teacher presents a selected story or activity first in sign language. The student is able to receive the full message and discuss the meaning of the story in this visual mode. When the story is then presented in spoken English, the child knows what to expect. Because the story is already familiar, the less accessible spoken English becomes easier to understand. In other words, as struggling for meaning is now less of an issue, the child is freed to focus more on the *form* of the spoken language.

As the child grows, he or she may need to work on specific English grammatical structures and/or aspects of speech. While they do develop intelligible speech, children in this group demonstrate a variety of errors in spoken English. It can be beneficial to begin to address these errors before they become "fixed" in a child's language. For example, some of the deaf and hard of hearing children with whom I have worked have had delayed use and understanding of spatial prepositions such as "in," "on," "under." Teachers and clinicians can work on these delays by playing hide and seek games in which the teacher or student verbally describes where items are hidden.

Other types of errors cannot be addressed until the child has developed *metalinguistic* skills, or the ability to reflect and talk about one's own use of language. For example, a child who cannot hear the high frequency sound /s/ may not be able to work on plurals until he or she understands the concept of plurals, usually not until about age 4 or 5. Once a child has an understanding of plurals in ASL, he or she can be taught the concept in written English (by making the connection to the printed "s" in words), which can then be taught in spoken English. Children also tend to have an easier time developing the production of the /s/ sound when they understand its purpose in a word. Close collaboration between the classroom teacher and the speech language therapist in addressing such issues can help children grasp aspects of English that are inaccessible to them through hearing and are different from ASL. All of this work is supported and facilitated by having a full-fledged language with which to practice, use, and discuss these metalinguistic concepts.

Parents are often concerned when their child, who is already speaking, enters a program that uses sign language. They are worried that their child will stop speaking or that his or her spoken English skills will not progress. As noted earlier, this concern has been unfounded in my experience. A young child who is exposed to both ASL and spoken English skills quickly learns a skill known among linguists as *code switching*—using the language or form of language called for in a given communication situation. Initially, the child may be a bit confused and occasionally frustrated as he or she learns a new language and tries to determine how to communicate with the different people in his or her environment. However, once skills in both languages are sufficient for communication, the child will put them to work as needed. One staff member told me a story about a preschooler whom the adult assumed was profoundly deaf and lacking in any spoken English skills. One day the little girl's mother picked her up early from school. The student ran to her mother saying, " Mom! Today I painted during center time." The staff member was shocked. Obviously, this four-year-old knew when to sign and when to speak.

Learning Spoken English through Teaching and Practice

This group includes children who have more significant hearing losses or for various reasons demonstrate less potential to acquire spoken English through interactive processes alone. These children do not easily learn language through the auditory channel, although the use of their residual hearing may help them to perceive and produce speech sounds and new vocabulary. (Again, actual benefit from this factor can vary greatly within this group, and is not easily predictable when these children are young.) For these children, competency in English tends to be primarily achieved through reading and writing. The goal for this group of children is not necessarily full fluency in spoken English. However, they may have the potential to learn spoken English to communicate on a very basic level, and often develop receptive speechreading skills that will be valuable in a variety of settings. Although vocabulary, sentence structures, and depth of the interaction may be simpler for this group, spoken English can be used in certain situations as an effective mode of communication.

Students in this group often benefit from a traditional approach to therapy, including activities designed to teach individual speech sounds or specific grammatical and syntactical structures, as well as conversational discourse skills. In other words, children in this group must be *taught* specific language and articulation skills, as they do not have sufficient access to sound to *acquire* them through social interaction. This teaching process is very different in character from natural development of language and therefore is slower. However, having a first language with which to discuss what is being learned and create meaningful practice can speed

the process. There are a number of structured programs for teaching deaf and hard of hearing children articulation and language skills. As with any child involved in speech and language therapy, it is very important to keep activities meaningful and content-driven. This can be achieved by using materials from the classroom as well as activities that are of special interest to the child. For example, with one of my students who loves football, we use NFL team names to practice articulation skills. Receptive and expressive spoken language skills should be practiced in a realistic and motivating context; for example, practicing how to order at local restaurants (our school's Community Communication trip program will be described in the next section).

In an environment where ASL is the primary language of instruction, some professionals worry that a deaf or hard of hearing child who falls within this second group will not receive enough exposure to spoken English. It may be true that the overall amount of exposure to spoken English will be less during the hours the child is in school for these children. However, the quality of that exposure for children who have a fuller understanding of the communication process and of each language may actually be greater.

Communication in the Community

Children in the third group demonstrate little potential to develop any useful spoken English skills. In an environment where expression and access to information and academic content can be fully achieved through two languages—ASL and written English—such a statement does not carry the devastating implications it once did.

Traditionally, children in this group would either remain in speech therapy that had little benefit for them or would not receive any services. A more effective approach is to focus on the skills each student can utilize to communicate with the general community in which they live. This includes speechreading, written communication, gesturing, uttering single words or short phrases they can say intelligibly, or "mouthing" (using mouth movements without voice to approximate spoken words). Some of these children have good ASL skills and have a good understanding of what they need to do in different communication situations, but need the opportunity to practice independently in safe contexts and develop new skills. Others have communication problems in a broader sense, never having developed full competence and confidence with either language. In each case, it's important to assess children's abilities and help them learn skills that can be employed in a variety of situations. In order to keep these skills meaningful, they are first practiced in the classroom where students can use ASL while reflecting upon

and discussing their communication processes; then the students go out into the community to use the skills in various contexts, such as in stores or restaurants.

For the past several years we have used this communication approach with all our elementary students. Although it was originally intended to be used with students with no oral communication skills, it has been very effective with a variety of students. The goals and methods vary with the skills of the student, but each student learns about communicating with the general public. The skills developed include:

- Speechreading - using lipreading, facial expression, context, and environmental cues to comprehend a spoken utterance.
- Articulation reinforcement - strengthening pronunciation by practicing specific speech sounds within meaningful contexts.
- Pronunciation - learning how to pronounce newly acquired vocabulary.
- Use of environmental print - gaining information about a situation by reading everything posted; learning to recognize and use words that appear in the environment (e.g., on a menu) to communicate.
- Repair strategies - practicing techniques to use when the communication breaks down or an utterance is misunderstood (e.g., asking a person to repeat, or restating your own utterance in a different way).
- Anticipatory strategies - knowing what to expect in a given situation and considering the most effective techniques to employ *before* a communication situation occurs (e.g., anticipating what a doctor or salesperson may ask).
- Written communication - practicing use of new, situation-specific (or previously learned) vocabulary to efficiently and effectively convey a message.
- Pragmatic language skills - developing knowledge of *how* the language is used (e.g., understanding the ways users of English begin and end conversations, take turns, convey direct quotes, and other aspects of language use that govern the exchange of meaning).

There are several different factors to consider when planning communication therapy. Which modes of communication can a child use? What trips will interest and challenge the child and have real meaning? Can the child role play with or without props? For example, some children need to completely act out the planned communication exchange using real props (bringing in donuts before go-

ing to the bakery). Other children can handle role playing using pictures or less realistic props. It is important to teach the children there can be a number of different ways to communicate in a given situation. For instance, at an ice cream store where the flavors are displayed, children could choose to point or write to communicate. They may also need to change modes within a given situation, for example, writing or saying the ice cream flavor but then pointing to indicate they want sprinkles.

Our trips have ranged from a simple trip to buy donuts to visiting a geology lab at the local university. These trips are valuable learning experiences that can have a significant impact on a child. After the first year of these trips, one of my students told me about going to McDonalds and telling her mother, "I can do it myself," when it was time to order. This is a great example of how communicative competence can lead to greater independence and self-esteem.

Conclusion

The purpose of this paper has been to begin a dialogue about how we perceive deaf and hard of hearing children's speech, language and communication development. The goal for every child should be to develop his or her language skills in order to ensure literacy and academic success. In addition to language development, we need to maximize each child's communication skills—whether they are written, spoken, or signed. By learning from current research, especially in the area of bilingualism and second language acquisition, professionals and parents can begin to make informed decisions about how to best educate each deaf and hard of hearing child. Long-held beliefs and traditional methods, as well as popular trends that are not yet fully developed, must be objectively considered and modified as necessary in light of this new research. By perfecting old techniques and continuing to adopt theoretically sound new practices, the education of deaf and hard of hearing children can evolve to better serve the needs of each child and his or her family.

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