

Language and Literacy Development in Children Who are Deaf or Hearing Impaired

by **Sandra J. Briggie**



Understanding more about students with hearing impairments can improve the quality of education teachers provide.

Since the enactment of Public Law 94-142 in 1975, now referred to as the Individuals with Disabilities Education Act, more children who are deaf are attending public schools instead of residential schools for the deaf. Calculating how many children in pub-

lic schools currently have a hearing loss is difficult because hearing impairment is not reported separately for students with multiple disabilities. Of all Americans, however, ten percent have a hearing loss. Because deafness is a low-incidence disability, many teachers

do not have a strong knowledge base about learners who are deaf or hearing impaired. To ensure that students who are deaf receive the

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quality education they deserve, educators must understand the learning needs of this population. Through this understanding, educators can work to create a new generation of highly literate students who are deaf or hearing impaired.

Students who are prelingually deaf (either born deaf or became deaf before acquiring language) or hearing impaired, with no other disabilities, are a diverse group of students. Though a multitude of factors should be considered when teaching such students, a primary one is language development. Students who are deaf acquire language in different ways, depending on the home environment. Language development plays an important role in a student's literacy learning.

Families Who Are Hearing

Some commonalities exist in language development between students who are deaf and students who are hearing. Language development is contingent on frequent, consistent, and accessible communication. These factors are the same for children of parents who are able to hear, as well as children of parents who are not able to hear. The mode of communication (signed or spoken language) is not a factor (Marschark 2001).

However, children who are deaf and born to hearing parents generally start learning language later, and with less consistent and less useful experiences. Such children do not share a native language with their family. Their hearing loss, on average, is not identified until their first birthday (Marschark 2001). These children are exposed to less linguistically rich environments than deaf children of deaf

parents or hearing children of hearing parents. Because of these differences in language exposure, children who are deaf in homes with hearing caregivers commence their language learning at a later age than their peers (Marschark 2001).

In families where parents are learning a new language, such as American Sign Language (ASL) or Signed English (SE), with which to communicate with their child, children have a tendency to acquire inconsistent or incorrect linguistic input (Kuntze 1998; Marschark 2001). This early language deprivation explains the troublesome statistic that 90 percent of deaf children born into homes with only hearing caregivers experience delays in language acquisition compared to hearing children in hearing families and deaf children in deaf families (Kuntze 1998; Meier and Newport 1990). Because most children who are deaf do not have deaf parents (Moore 2001), it is not surprising to see language delays from these children. Many actually are *language deprived* up until their school exposure, which might be their first experience with a competent language model.

To counteract the apparent language deficit in hearing families with children who are deaf, Katasse (1997) recommended a variety of strategies to provide meaningful language experiences. Teachers should share these suggestions with families, as well as remember them in their own teaching:

- Model social and public encounters as an adult who is deaf would. Using notes in restaurants and stores is an important way to model successful, nonverbal communications.

- Use written language to communicate within the family and classroom. Informal notes, journal entries, and drawings can serve as effective communication in both settings.
- Keep up-to-date on learning sign language. This includes enrollment in refresher and more advanced classes.

While most regular education teachers are far from fluent signers, those who learn and use basic, common signs show deaf students their interest in communicating. Students who are deaf will have an interpreter, but teachers can create a feeling of belonging by learning sign themselves and teaching sign to their classes. Teachers should not be afraid to ask students, interpreters, and parents for assistance with signing. They are wonderful resources.

Parallels to Children Who Are Hearing

Literacy development in children who are deaf or hearing impaired is a multifaceted issue. There are many parallels to literacy development in hearing children, as well as some elements unique to children who are hearing impaired or deaf (Ewoldt 1985; Padden and Ramsey 1993; Rottenberg 2001; Rottenberg and Searfoss 1992, 1993). Understanding these commonalities and differences allows teachers to plan more appropriate, meaningful literacy activities in their classrooms.

Students who are deaf will benefit from many of the literacy activities already in place within the regular education classroom. For younger students, time to explore writing, drawing, books, and environmental print is crucial. Story time (translated into sign) and

journal writing using “invented spelling” are appropriate activities for young children who are deaf.

Children who are deaf or hearing impaired, like their peers with full hearing, participate in literacy events and use written language in many typical ways. Children who are deaf demonstrate the following uses of language (signed or spoken):

- to interact socially with peers and adults while writing;
- to provide information about written text, to label written creations, and to monitor the construction of text (Williams 1994);
- to request assistance with writing tasks from adults and peers;
- to challenge others’ knowledge of literacy; and
- to evaluate literary works (Williams 1994).

Similar parallels can be drawn for early literacy experiences with reading (Rottenberg 2001; Williams 1994). Like their hearing peers, children who are deaf show an interest in print and drawings (Rottenberg 2001; Williams 1994). Within print-rich classrooms and supportive homes, hearing impairments and deafness do not significantly differentiate the process of literacy development (Ewoldt 1985; Padden and Ramsey 1993; Rottenberg 2001; Rottenberg and Searfoss 1992, 1993). However, teachers should remember that students also use literacy in ways unique to their deafness.

Unique Strategies for Children Who Are Deaf

Perhaps the most significant difference between the use of literacy skills in children who are hearing and children who are deaf

is the reliance by children who are deaf on literacy skills, such as writing, as a mode of social communication (Maxwell 1985; Rottenberg and Searfoss 1992). Evidence from Rottenberg and Searfoss (1992) indicated that children who are deaf use literacy as a way to learn about and gain access to a world where the majority of people use a verbal mode of communication. When attempts at signed communication fail, children rely on drawing

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or writing to express themselves (Maxwell 1985; Rottenberg Searfoss 1992). For children who are not yet able to write or draw a clear message, environmental print—such as name tags, charts, signs, and labels—is shown to a communication partner to convey a message (Rottenberg and Searfoss 1992). This is a cultural phenomenon that continues throughout the life of adults who are deaf.

Despite the frequent use of written communication by children who are deaf, the reliance on letter-sound relationships in written language provides a significant challenge for emerging writers with hearing impairments (Williams 1994). Without the ability to hear

initial consonants in words, using the strategy of sounding out a word is not a useful approach. Seemingly, however, children who are deaf do make generalizations about beginning sounds based on the visual cues provided by the hand shape of the sign for the word (Ruiz 1995; Williams 1994). While this works for some words, such as names, the strategy has been observed to be overgeneralized by children to include other words without sign-initial consonant correspondence (Ruiz 1995).

A similar, more developed strategy is observed as children use finger spelling to record words in print (Padden and Ramsey 1993; Ruiz 1995; Williams 1994). As children make the connection between the finger spellings used in daily communication and the written English language, select, high frequency, personally important words begin to appear in their writing (Padden and Ramsey 1993; Ruiz 1995). Because some finger spelling is part of daily communication using ASL, many children are exposed to a variety of such words from birth. Using these words in written format shows a more developed understanding of the relationship between signed and written language (Padden and Ramsey 1993). Linking language (ASL) with printed text (English) creates a connection that is useful in reading and writing new or unfamiliar words (Padden and Ramsey 1993).

Finger spelling, therefore, should be encouraged as a viable strategy when presenting new words in the classroom. Hearing peers also find this technique helpful for remembering difficult spellings and words.

Classroom Practice

When considering the learning environment for students who are deaf or hearing impaired, keep in mind the commonalities and differences discussed in this article. Opportunities to read and enjoy books alone, with friends, and with teachers are important learning experiences for all students. Exploring the written word through drawing and writing also benefits all students. Make sure that students have time to discuss their literacy experiences amongst themselves and with others. If you are just learning to sign, use written notes combined with signing to communicate. If your student is unable to come up with a sign for an object, assist him or her in finding the written word or an actual example, and then look up the sign together. Provide written, as well as sign labels for classroom objects. This will help connect sign to spoken language.

Organize your classroom to maximize visual input. The following suggestions help ensure that students receive information in a clear, efficient manner:

- Write key words, phrases, and assignments on the board.
- Use visual aids whenever possible to provide additional access to information presented in class.
- Use an overhead projector rather than a chalkboard. This allows you to face the students rather than have your back to them.
- Arrange seating so that students with hearing impairments can see *and* hear the majority of what is occurring during class. Make sure that the light source (window or open door) is behind the stu-

dent; visual cues are difficult to see when looking into the light.

- Use closed-captioned videos.
- Present new vocabulary to students prior to the lesson. This allows students to recognize the words and signs during the lesson and thus maximize comprehension.
- Teach students to raise hands and be identified before speaking or responding in class. This allows students who are deaf to know who is speaking.

By making some small changes in your daily teaching, you can create a more visual classroom environment. These visual strategies not only will benefit students with hearing impairments, but also will provide additional input for hearing students. Visual input always must be considered when planning lessons and activities. Alter your story time so that you can sign as you read, or have an interpreter sign the story as you read it aloud. If using an interpreter, make sure that he or she is signing near the book. This shows the connection between the written words, the oral story, the pictures, and the signs. Exploring students' names to show the interrelatedness of sign and English is another high-interest, successful activity.

Final Thoughts

Overall, having a student who is deaf in your classroom should not dramatically change the way you teach. Providing a developmentally appropriate, print-rich environment is integral to literacy success. Exposure to competent language models, whether interpreters, teachers, or peers, encourages language development. Opportunities to respond and ask questions in class also help. Teach-

ing hearing peers to sign increases the amount of social interaction and directly affects learning. Having a student who is deaf should be a learning experience for everyone. Being prepared and understanding more about students with hearing impairments only can improve the quality of education teachers provide.

“Provide written, as well as sign labels for classroom objects.”

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