Tactile Strategies for Young Children who are Deaf-Blind: A Teacher's Perspective

By Patty Salcedo, M.A.

Professional Background

After my daughter graduated from the Infant-Family Program of the Foundation for the Junior Blind in Los Angeles in 1986, I began working there as an early interventionist. That program serves children (birth to 36 months) with visual impairments and multiple disabilities. Many of the children are considered deaf-blind.

In 1989, I began teaching at the Blind Children's Learning Center in Orange County. Children who are deaf-blind comprise a small yet consistent portion of the student population in the preschool. The Center participated in Dr. Deborah Chen's model demonstration network for infants who were deaf blind and their families.

In 1995, I began working in the Sacramento County Office of Education's Infant Development Program, which uses the transdisciplinary team model. We identified several children who were deaf blind, most with additional disabilities. The teachers credentialed in the area of visual or hearing impairments lead the team for infants who are deaf-blind. Other disciplines include occupational therapy, physical therapy, and speech therapy. As the babies began to move, an orientation and mobility instructors provide consultation.

Role of Teacher in Visual Impairments

As a teacher credentialed in visual impairments, my primary role is to identify the child's visual abilities and the impact of visual impairment on development. With children who are deaf-blind, my primary role also includes working closely with the teacher of the deaf and hard of hearing to develop an integrated intervention program for the child and family based on learning through touch. An integrated program requires a true transdisciplinary approach as we share salient ideas from each of our fields, and seek information from the field of deaf-blindness. My role also includes articulating areas of need in other areas, and bringing in the appropriate team members. Needless to say, my role is to schedule many meetings!

Early Intervention

As part of the team in both infant and preschool programs, I develop tactile strategies and adaptations to meet the needs of children. With infants, our goals include building a strong child-caregiver relationship, developing a communication

system, and helping the child find methods for exploring the environment in a meaningful way. We began by establishing touch routines with family members. Caregivers would communicate their presence through a touch and then learn to read infant cues for interaction. We work to build the baby's anticipation for being picked up and held. Caregivers develop individualized touch and gestures to identify themselves, (e.g. Daddy's beard means "Daddy").

The infant's environment is structured so that the baby can easily encounter objects in close proximity. Objects are selected based on a variety of tactile characteristics. We use toys made of wood, plastic, and different textures of fabric. We incorporate household objects of metal (measuring spoons), foam (curlers), and nylon (hair brushes).

We build concepts by using many tactile variations of the same object such as a ball, a spoon, or a cup. In this way, the child learned the characteristics of the object that describe its function as well as those characteristics that may differ. For example, a cup may be large, small, heavy, or light. It may be made of plastic, glass, metal, or ceramic. Yet, all cups fall within certain size and shape parameters and all can hold liquids. The child discovers what is different and what is consistent through exploring many examples of an object.

The child with vision recognizes how a model of an object (e.g., a plastic fruit) resembles the real object. Children who are deaf-blind do not have this information. They identify objects based on shape, size, texture, weight, temperature, and smell.

When possible, real objects should be used to teach concepts. Real objects provide the necessary information with which the child who is deaf-blind can identify and discriminate objects, and thus build concepts of the nature and function of objects.

As toddlers begin to travel, it is important to store toys in the same place, not to move furniture "landmarks" and to allow many opportunities for repetition and practice. We incorporate touch into daily routines and built learning activities into these routines.

Preschool

In preschool, classroom space is divided so that the children can travel throughout it using touch. Large open spaces do not provide sufficient information as to location or expected activity. Students use tactile landmarks to navigate the classroom, such as cubby storage, the piano, and the tables. Using a relevant item to label an area helps the children associate where they were with what occurs there, e.g., a printed sign identifies the block area with a wooden block attached to it. The dress-up area is a favorite for many of the children who are deaf-blind. They enjoy the hats, ties, hair salon games (curlers and brushes), and jewelry. All of these objects are used on the body, and seem to feel good to the children. As with infants, an environment should be rich in tactile experiences yet organized, because every experience needs to have meaning to the child who is deaf-blind.

Preschoolers are assigned seats at circle, snack, and lunchtime. The child who is deaf-blind will get to know the child on either side over a period of time. Adults can facilitate interactions by prompting the other children to share objects, pass materials, and identify themselves verbally and by cue. The other children are taught how to read the communication of the children who are deaf-blind by looking at their gestures, facial expressions, and movements. They are also taught to "wait a little bit longer" to give the child time to respond. This is not easy , but very rewarding for all of the children.

Circle time provides another opportunity for interaction. Real objects associated

with the learning themes are provided, such as articles of clothing, household objects, outdoor objects, and toys. An experience box can be used to re-tell the story of activities that the class had enjoyed together. Themes are selected with the use of objects and peer interactions in mind. Rhythm and movement activities are popular, and are often conducted with partners. Traditional circle time activities, such as identifying the weather, allows the child who is deaf-blind to go outside and experience it directly—especially fun when it is raining. A calendar box represents the days of the week because class activities vary by day. Circle time activities are kept short, and not every child is expected to engage in each activity.

Some of the children enjoy music. We use instruments that are highly resonant and provide strong feedback. Favorites include drums (the larger the better), a dulcimer, and the piano. The dulcimer is held across the lap, providing more input to the child's body when strummed. The piano is placed perpendicular to the wall, allowing the child to feel vibration through the back of the instrument. The children enjoy different rhythms, produced by clapping, foot stamping, or with rhythm sticks. Some children enjoy music and fine motor activities on a platform, such as Lilli Nielsen's resonance board as this increases feedback to the child.

Object books are developed for both toddlers and preschoolers. An experience can be recalled through the use of associated objects. A party or picnic might include a paper hat and napkin, balloon, or plastic utensil. The experience book (or box) is used in conjunction with the child's communication system.

Many of the children are potential braille readers. The children are exposed to braille incidentally, rather than engaging in formal braille instruction. Braille appears around the room as print does for the sighted preschool child, only within the reach of small hands. Many of the children find braille labels interesting to touch. The playhouse contains a braille menu, the classroom areas are labeled with braille signs, the library corner contains print/braille books, the writing area offers a Perkins braillewriter, and each child's cubby features his or her name in print and braille. The children are prepared for formal braille training by engaging in wrist and hand strengthening activities such as wringing sponges, washing and pinning up doll clothes, cutting paper, opening containers, and pinching play dough. The children need to learn to discriminate and understand patterns, so they engage in play and naming activities focusing on concepts such as rough, smooth, beginning, ending, top, bottom, same, and different.

Orientation and mobility (O&M) training becomes more important in preschool. The children spend much time trailing in the classroom, identifying features and mapping their environment. O&M instructors work directly with students and consult with families and staff. Classroom areas are demarcated by the position of storage units. Tabletop activities are adapted to establish boundaries of personal space using trays or placemats, and materials are in close proximity and in easily identifiable containers.

Selected Adaptations

Children who are deaf-blind require much exposure and repetition with activities. We introduce objects using the technique of offering (touching child's hand and waiting for an attempt to grasp), or by hand-over-hand joint movements. This is followed by an opportunity for the child to engage in the activity independently. The hand-under-hand technique allows the child more independence while providing guidance, or "navigation" around a person or object. A child with motor difficulties, such as cerebral palsy, might require more stability. A seating position should be developed, which allows the most independent hand use. Materials may be adapted to be heavier, larger, or with enhanced handles, to promote more successful grasp.

Teaming

Working as a team to develop learning activities strategies is challenging. Touch cues need to have meaning for the child. This meaning has to be developed and takes time for the child to learn. With limited hearing or vision, a child does not learn meaning incidentally. Agreeing on the most meaningful, efficient, and easy to use strategies is often an obstacle for a team. A large team brings many backgrounds and opinions to the table. Once consensus is reached, everyone needs to teach others involved with the child to use the strategies consistently. Families need to be able to voice whether they can realistically incorporate strategies (or risk a label of "not following through.")

Consistency is vital to making a learning activity successful. Everyone needs to know, and commit to using, the same touch strategies. Everyone needs to greet the child in the same way, use the same routines, and the same names and labels, cues and signs. "Everyone" includes all educational staff as well as the child's caregivers and classmates. Opinions differ as to when sign language should be introduced, or how meaningful a touch cue is to the child. Questions arise as to the timing, position, and repetition of touch cues. Working with young children involves facilitating language development. As teachers and interventionists, we need to know the small steps in typical language development and then make adaptations for the child who is deaf-blind. This is not always easy. The children require clear, concrete messages, much opportunity for repetition, meaningful and satisfying activities, and ample time to learn. With sufficient support, children who are deaf-blind can learn about the people, objects, and places in their environment through their sense of touch.

Selected Resources

Chen, D. (Ed.) (1999). *Essential elements in early intervention: Visual impairments and multiple disabilities.* New York: AFB Press.

Chen, D., & Schachter, P. (1997). *Making the most of early communication* [video & booklet]. New York: AFB press.

Chen, D., Klein, M.D., & Haney, M. (2001). *Promoting learning through active interaction. An instructional video* [video & booklet]. Baltimore: Paul H. Brookes.

Harrell, L. (1984). *Touch the baby: Blind and visually impaired children as patients: Helping them respond to care.* New York: AFB Press.

Huebner, K.M., Prickett, J.G., Welch, T.R., & Joffee, E. (1995). *Hand in hand. Essentials of communication and orientation and mobility for your students who are deaf-blind.* New York: AFB Press.

Klein, M.D., Chen, D., & Haney, M. (2001). *Promoting learning through active interaction. A guide to early communication with young children who have multiple disabilities.* Baltimore: Paul H. Brookes.

Other Resources

- **California Deaf-Blind Services www.sfsu.edu/~cadbs/**
- **Work of Jan van Dijk see DB LINK www.tr.wou.edu/dblink**
- **Work of Lilli Nielsen see www.lilliworks.com**

SALUTE is a model demonstration project funded by the U.S. Department of Education grant # H324T990025 to California State University, Northridge from September 1, 1999 to August 30, 2004.