This brief paper offers suggestions for parents and teachers working together to develop meaningful communication skills in deaf multi-handicapped children. An intervention program developed by Jan VanDijk is described. This program involves the use of environmental engineering to teach language concepts with materials such as a calendar box with partitions containing pictures or objects to help the child understand his/her daily routine, a communication triangle to help the child learn to signal his wishes by gazing, pointing, signing, or speaking, and an experience book or journal that goes back and forth between school and home to encourage the child to tell about his experiences. The paper also recommends useful resources for these children such as a digital camera, some computer software image collections, and overlays to adapt the computer keyboard. (DB)
Teachers and parents of deaf Multihandicapped children struggle with the frustration of achieving meaningful communication. The first step to communication training is assessment by the parents as part of the Educational Team. Parents need to work cooperatively to develop a Team, which includes the parents and teacher, speech/language pathologist, physical therapist, occupational therapist, teacher's assistant, audiologist, or nurse. Together the Team assesses the child's strengths and challenges in the six domains of Communication, Fine Motor, Gross Motor, Activities of Daily Living, Social and Academic Skills. Dr. Jan VanDijk of the Netherlands developed a curriculum approach for designing programs for DeafBlind Multihandicapped children. Its focus is on teaching communication through movement. VanDijk's approach provides insight into how to build upon the child's existing methods of communicating using body movements, signals, gestures, signs, and speech.

After the initial assessment phase, the second stage of the process of teaching language concepts to the Multihandicapped deaf child is to use environmental engineering. At this stage all those who are involved with the child try to build opportunities to communicate and to provide predictability. The child needs to learn that a coactive sequence for dishwashing will be consistently followed, so he can predict what will come next. The teacher or parent pauses, and waits for the child to signal, or gesture what will happen next.

VanDijk suggests the Calendar Box as a vehicle for making sense out of the daily routine. An object, photograph, or picture is placed into each partitioned section of the Calendar Box, to represent a part of the child's day. The adult and child coactively get the item that represents the first activity and have a conversation about what will happen. The adult carefully watches the child for a signal or gesture that may relate to that activity. These Natural Gestures are then shaped to be more easily recognizable and repeatable from day to day.

The Calendar Box helps the child make sense of the transitions from one activity to the next and gives the adult the means to have a conversation about common, predictable events. When the child completes the first activity of his day, the object for that activity is placed in the Finished Box. The adult guides the child through manipulating the objects and converses by signing about the activity. The adult engages the child in a conversation about the activity just finished and asks, "What's next?" Then the child is helped to get the item in the next section of the Calendar Box. Although the process takes time, the child
develops a set of his own Expressive Signals. The signals may be shaped into signs or speech, or may result in a definite pointing of the finger. Calendar Boxes, suggested by VanDijk, may need to be adapted into wall posters, wallets, books, or a single vertical strip of objects or pictures velcroed onto cardboard, depending on the child's abilities.

For deaf children, the Communication Triangle is an important breakthrough in the development of communication. The child signals that he wants something by looking at an item, then looking to the parent, then back to the item, forming a triangle. The parent recognizes the communication attempt and points to the item, then looks at the child and back to the item. The parent signs the word and gives the item to the child. Depending on the child's physical abilities, the signal is shaped toward pointing to a cup, giving a cup to Mother if he wants juice, or signing the word "drink."

Some children have difficulty processing language concepts. Sign language and speech are fleeting and then gone. Some children love pictures and printed words because they are something tangible that they can study, manipulate, and make some sense of. Even though they may not understand the meaning of the printed words, they enjoy seeing a line of print connected to their pictures.

The third and very important phase of communication training is to build Distancing. The child is encouraged to tell about something he has just done, or to report to his parents about a school activity, using an Experience Book or Journal that goes back and forth between home and school. He may use a calendar for the week or for the whole month to plan for a special event. A Memory Book holds mementos of favorite activities for the week. Then the child can refer back to past events for pleasure or to tell someone else about it. The items that are in the Memory Book or the Journal are selected by the child during a conversation with a parent or teacher.

There are some excellent resources which help the deaf Multihandicapped child understand what is being discussed. A camera may be used to take photographs of an outing to the grocery store, or a favorite Show and Tell toy can be photocopied for the Experience Book or for the Memory Book. The QuickTake (R) or Connectix (R) digital cameras can dump actual photographs directly to a computer's word processing program. The child or adult can type in appropriate captions, then print the page to be used for review activities or for inclusion into the daily Journal. Photographs can be included in a Communication Wallet or added to the Experience Book to tell Mom and Dad about an experience at school.

If the child is starting to understand more symbolic pictures, Mayer-Johnson's BoardMaker (R) computer software program provides 3,000 pictures which may be modified by size, color, caption size and sentence complexity. For example, a child's coactive sequence of dishwashing can be pictured in order, with pictures and captions, to help cue job completion or simply to explain how to do the process to Grandma.

Another of our favorite technological tools is the IntelliKeys (R), with the OverlayMaker (R) and IntelliPics (R). The deaf Multihandicapped child may not be able to use the mouse or the standard keyboard. However, with teacher-made overlays placed onto the IntelliKeys(R) adapted keyboard, he can touch specific "buttons" and type out a report about his trip to the store, or he can page through an IntelliPics (R) story which has QuickTake(R) pictures of himself buying the food. The opportunities for meaningful communication can be repeated and widened to new conversation partners who may not understand sign language or know the child's unique ways of forming messages.

Parents and teachers of Multihandicapped deaf children continue to dream of opening the doors of communication. The process of learning to communicate is not an easy one, but it is systematically built upon the Team's careful and continuous assessment, by establishing frequent and predictable opportunities to communicate about hands-on activities, and by expanding the distancing of communication through the use of Calendars, Journals, and Memory Books.

References:

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