



# Simple, Inexpensive Devices Can Assist in Communication

ALL-16

Most people agree that it is important for children to be able to express their likes, dislikes, needs, and ideas and for their parents, siblings, peers, teachers, and others to understand them. Yet for children with language impairments, trying to communicate can be not only frustrating but nearly overwhelming.

In addition to long-established methods of teaching communication to young children, simple devices are becoming more readily available. The new electronic devices can help children with language disorders or difficulties take turns, call for attention, make a request, and participate in classroom activities.

PACER's Kids Included through Technology are Enriched (KITE) staff train personnel of early childhood programs in the Twin Cities, and they help teachers and other service providers use communication devices with preschool children.

"We have seen children choose songs they wish to hear, revealing their preferences and making choices for the first time," said the KITE staff. "We've watched youngsters use a single message device to say the Pledge of Allegiance with the class, or give the day's weather report. We've observed three-year-olds 'ask' for a turn to hide the dog in 'Oh Where, Oh Where Has My Little Dog Gone?' [a musical activity]. We've also seen children learning to use sign language, matching symbols to words and phrases, in addition to 'speaking' with a recorded voice—and they were enjoying themselves enormously."

"At one program, a four-year-old Hmong child was learning English by copying words from objects in the classroom and hearing the sounds of the letters and words spoken by word processing software," said the KITE staff member. "She was so absorbed that she didn't notice we were watching her copy the brand name off the computer monitor."

Augmentative and alternative communication, such as that used by the children above, encompasses many techniques. It includes pointing to pictures, objects or symbols; signing; body language; eye-gazing (following cues given by the eyes); and technology such as talking switches, communication devices, and computers. The techniques help develop language for children who do not speak, those who speak but cannot be understood, or those who cannot express themselves as well as their classmates.

Teachers or parents trying to communicate with a child can start with what they know and have on hand. Using simple, inexpensive, and readily available devices exposes children to communication and helps determine the number of responses they can master. For example, experts recommend that adults choose language for an interactive, enjoyable activity (such as "Hide and Seek") and build on words the child understands. After assigning symbols to the words, adults point to the symbols while speaking them in a structured way, giving the child time to try the choices again and again. Other children observing the activity will want to try it, resulting in greater inclusion for the child who needs help communicating.

Teachers have long used low-tech ways to help children express themselves. Two methods are (1) pointing to pictures on communication displays (a board, book, or other items) and (2) signing. Communication displays use actual objects, photographs, drawings, or symbols from one of several well-known symbol sets. The child communicates by pointing to pictures placed on the display. The method is inexpensive, yet it gives a voice to a child. A child who cannot point with fingers might make choices by eye gazing or directing light at symbols. Another child might press a switch to advance a dial on a clock-like device and point to his or her choice of messages.

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Recent technology includes elementary and inexpensive (some under \$100 dollars) voice output devices appropriate for young children. The devices operate on the principle of a simplified tape recorder. Words are recorded for each button or target area, and a symbol is placed on the button or area. A message is spoken when the child presses one of the buttons. For example, a child touches the symbol for cookie and hears the word spoken. Thus, the device reinforces language through visual, auditory, and motoric means. Repetitive phrases, sound effects, and simple songs can be recorded so the child can interact with his peers or siblings in many activities.

Depending upon the device, the amount of recorded speech varies from several seconds to minutes. The devices can contain from one to more than 20 messages that can be changed quickly and easily. The equipment is appropriate for multicultural settings, because a parent, teacher, or another child can record the messages in any language. A few seconds of recorded speech allows a child to participate in reading time ("Turn the page") or playtime ("I want a turn on the swing").

Even a simple voice output device offers options to help a young child express choices and needs and learn language skills. Some children progress to the

point that they need a more powerful and expensive voice output communication aid (VOCA) or software on a desktop or portable computer that allows them a greater range of choices. Other children will begin talking and can pass on their used device to someone else who needs it.

Young children need a safe, encouraging place to learn, practice, and experiment with language—a place where all forms of communication are welcomed and encouraged. Teachers, service providers, and parents should work together to develop new ways to communicate with their children. They need also to evaluate the child's needs, capabilities, interests, and experiences regularly so they can set goals that will help the child's communication progress.

The benefits of enabling a child to speak his or her mind are many. Children can make choices and express their preferences, wishes, and ideas from a very early age, giving others the opportunity to know them and better assist them. Behavior improves as the child becomes an active learner and social being. Inclusion among peers and siblings results in increased self-esteem and motivation.