



Gestures, Signs, Pictures, Words: How Does It All Work?

When I tell the parents of very young children that CSLOT's speech/language pathologists (SLP's) may teach their child to use signs to communicate, they often get a worried look on their faces and respond with, "But we want him to talk." I assure them that the use of signs is a linguistic precursor to the use of spoken words and the use of signs enhances, not hinders, language development. A sign, after all, is a signal that one person sends with the intention to communicate something to another person. As adults, we do it all the time in our daily lives to accompany the spoken word, and we call these signals "gestures." Young babies use gestures as well. From the age of about 9 months, babies gesture to get their needs met through ritualized requests such as reaching with an open-close grasping motion of the hand(s). Gesture-speech synchrony originates in infancy, with hand to mouth behaviors, and later with the co-occurrence of such behaviors as babbling and rhythmic movements of the hands (banging objects), and continues to develop through the school age years. The consensus of recent speech and language research is that gesture, speech, and language are "tightly coupled" neurologically and developmentally. There is overlap in the neural control for speech and gesture (Capone and McGregor, 2/04), and speech and gesture, as symbols, share underlying cognitive abilities as well.

The growing body of research in gesture development in babies is rich, and corresponds nicely with that of the use of signs in the development of language in children who are deaf. SLP's working with non-verbal children have borrowed the formal signs of American Sign Language or Signing Exact English, and have applied these in therapy to great success. The sign, paired with the intent to communicate, can satisfy a need, which is motivating for a child who can't say the word. Over time, after hearing and seeing the word paired with the sign, the child's use of the sign will eventually fade in favor of the spoken word. Thus, it makes sense from a developmental perspective to teach these basic communicative signals, and get speech-delayed children "talking" with their hands.

How does one decide which signs to teach a young preverbal child? In CSLOT's EICs, we use signs that help the child get what he/she wants. The sign for "more" becomes a generalized sign for "I want." Thus, the therapist models "more," in which the fingertips of both hands meet in front of the therapist's chest with the palms facing down. A facilitator sitting in back of the child, gently takes the child's hands and, hand over hand, imitates the model. The therapist then immediately gives the child the desired object. This teaches the child that he can receive what he wants through using language, and language in turn becomes a tool for him to manipulate the respondents in his world. "Bye bye" can be taught in the same way and becomes ritualized so that the child is always waving goodbye appropriately. Other signs frequently used in the EIC are "eat," "drink," "cookie/ cracker," "fish" (edible goldfish), "baby," "go," etc. Parents who want to use signs that facilitate language in the home can google sign language dictionaries of American Sign Language.



That the child can request what he wants is what sets the stage for later verbalization. Through his use of signs, the child has learned a handful of words that actually work for him to obtain the things he desires. The same is true for the use of pictures. Children learn that if they give the respondent a picture of the desired object, the object will be given to them. Both pictures and signs are representations of the real thing. On a continuum from most concrete—the object, to least concrete—the word, pictures and signs are perhaps midway.

Pictures, also called visual supports, play a great role in the life of a child, for they represent objects and activities that the child may not yet be able to talk about. Children with developmental speech and language delays typically demonstrate relative strengths in processing visual information; auditory processing may be highly challenging to the child with Specific Language Impairment. Visual supports are pictures, photographs, logos, icons, or picture symbols which present information to enhance a child's understanding or active participation. Visual supports reduce the need for oral language processing in order to understand an activity, and allow the child to more actively participate in the activity. They reduce confusion by providing a road map for the child, who then can make decisions about how he/she wants to participate. The child, for example, can pick up a picture of a cookie and hand it to the clinician during snack time; for transitions to new activities, the child can take the "activity" picture to the appropriate part of the room where a Velcro poster has a matching picture which confirms the child's expectations that the activity will occur in that part of the room. Transition cards and choice boards are the primary types of visual supports used in the EIC because of the young age of the children. Older children benefit from visual schedules which prepare the child for what is expected during the day, and visual sequencing boards which define the steps within a task.

Nonspeaking, or minimally verbal, children can be supported by parents at home by using pictures in simple ways. I recommend making a picture of a highly desirable food item, putting it on the refrigerator with a magnet, and showing the child that if he/she pulls the picture off of the refrigerator and hands it to the parent, the child can eat what he/she likes. Start with pictures from the wrapping the food is sold in, i.e., a cut out from the Cheerios box, and use only one picture at first. When the child "gets" the picture exchange, the parent can expand to two pictures, then two pairs of pictures, etc. Digital cameras have revolutionized the process. Parents can take pictures of any item in the home, i.e., the tutu, the favorite stuffy, etc., and have them available for the child to exchange for the real thing. As children become familiar with the picture exchange system, the process can become more complex. Parents are encouraged to avail themselves of the expertise of the clinicians if they would like assistance in developing these systems.

Now let's talk about the word stage, which is what everyone wants to hear from our children in the EIC. Impatient to get to the word stage, or not understanding that words develop after a natural sequence of reliance on gestures and signs by children, parents



and therapists of children who are late in developing a spoken vocabulary, often push them to produce words when they are not ready to do so and quickly find out that there is no rushing the onset of the use of words. Like signs, words are symbols. That is, they stand for something else, usually something concrete, and are represented mentally. To get to the word, we facilitate the development of symbolic thought, which occurs naturally through play. Just as words are symbolic in that they represent or stand for actual objects or events, play is symbolic when an action or sequence of actions stand for or represent actual events experienced by a child.

When you first enrolled your child in CSLOT's EIC, you completed The MacArthur Communicative Development Inventory: Words and Gestures, the exhaustive list of words that your child understands and uses. You will remember that there was a set of questions asking you about how your child imitated your behaviors around the house, e.g., "Does your child put the telephone receiver to his/her ear?" Such simple imitation of adult behaviors is an essential step toward developing symbolic play skills. When a toy phone is presented to the toddler or a short stick is presented to the preschooler, both can "pretend" to be talking on the phone using more and less concrete objects to stand for a real receiver. Such pretend play is symbolic and heralds, or occurs simultaneously with, the onset of the use of first words (at around 12 months of age).