



The Baby Signs® Program: A Movement Built on a Solid Foundation

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Why Sign Language for Babies? There's nothing more heart-wrenching than hearing a baby cry and not knowing why. The problem for babies is with the painstakingly slow development of the ability to produce words. Fortunately, babies are a good deal more adept at controlling the movement of other parts of their bodies. And now, thanks to our two decades of research at UC Davis, babies are enjoying the benefits of using simple signs to let us know what's on their minds.

The Movement. Although our research began in 1982, the public was first introduced to the Baby Signs® Program in 1996 via our book, *Baby Signs: How to Talk With Your Baby Before Your Baby Can Talk*. The book sparked a grassroots movement fueled by word of mouth as more and more families discovered for themselves how easy signing with babies is and how many benefits it yields. Now in its second edition, the book has sold over 500,000 copies, has been translated into 14 languages, and has launched a baby sign language movement that is sweeping the world. Below are some indications that the momentum is continuing to grow.

- **The Original Book.** Even 11 years after publication, our *Baby Signs* book continues to be a best-seller. For example, a check of Amazon.com on 3/31/07 found the book at #39 among all parenting books, and at #7 among parenting books focused on infants.
- **Signing in Child Care.** Signing with babies is growing in popularity among directors of child care programs. To service this trend, the Baby Signs® Program has developed an Early Childhood Educator Curriculum to help large and small child care providers incorporate signing into their classrooms. We are currently working with both Bright Horizons and Mini-Skools, two major child care corporations, to help them add the Baby Signs® Program to their curricula.
- **Department of Defense.** Recognizing the importance of signing to healthy development, the US Department of Defense contracted with Baby Signs® for help in implementing the Baby Signs® Program in every child care facility on every military base around the world—including all branches of the military (Army, Air Force, Navy, and Marines).

Research. One reason that the Baby Signs® Program has been so well-received is because it is so firmly grounded in research. Below is a summary of the major research findings from our UC Davis research, as well as from research conducted by Dr. Claire Vallotton, a former UCD graduate student, now a Post-Doctoral student at Harvard University and winner of a young investigator award from the World Association for Infant Mental Health (WAIMH).

Results from our NIH-funded study (1989-1998)

- **Faster Verbal Development.** Babies who had been in the Baby Signs® Program developed both receptive and productive verbal skills faster than those who had not. (*Journal of Nonverbal Behavior*, 2000)
- **Higher IQs:** Retested at age 8, the children in our NIH-funded study who been in the Baby Signs® Program as babies scored significantly higher (by 12 points) on IQ tests than children who had not. (International Conference on Infant Studies, Paris, 2000)
- **Emotional Benefits.** A content analysis of parent interviews indicated that signing was associated with lower frustration, greater respect for babies' abilities, enriched parent-child relationships, increased interest in books, and enhanced infant self-esteem (Acredolo & Goodwyn, 1996).

- **Results from Early Head Start (EHS) Intervention Study**

EHS families who were encouraged to sign with their children were compared to EHS families who were not in an intervention study in the Yolo County (California) Early Head Start Program conducted by Dr. Vallotton. Results indicated that mothers in the signing families perceived their children as more “reinforcing” and “acceptable,” two important components of a Parenting Stress Index. Why these changes in attitude toward their children? Other results provide clues: Using signs changed the mother-child interactions specifically by (a) helping mothers become more “tuned in” to their children’s emotions, (b) increasing the children’s attempts to communicate with their mothers, and (c) decreasing the number of expressions of distress from the children. These results suggest that the addition of signing to EHS curricula for parents is an easy and effective way to improve family interactions in “at-risk” families. ((Paper presented at WAIMH Congress, 2006)

- **Results from UC Davis Child Care Studies**

The Baby Signs[®] Program has been an integral part of the curriculum at the UCD Center for Child & Family Studies since 1990. Using this setting, Dr. Claire Vallotton conducted a study of 10 infants videotaped in interactions with teachers over an 8-month period and a study of 12 toddlers videotaped in interactions with teachers over a 3-month period. The videotapes were coded to provide data relevant to a variety of specific questions. The following were among the results:

- **Generally Observed Benefits:** Signing in the classroom reduces aggression, builds trust between babies and teachers, provides a “universal language” that facilitates interactions in multi-lingual classrooms, makes teachers more observant and responsive, increases “active” learning, helps daily routines proceed more smoothly. (Paper presented at the Zero to Three 18th National Training Institute, 2003)
- **Teacher Responsiveness:** Using multiple-regression analyses to account for teachers’ experience, children’s age, individual child effects, and frequency of children’s gestures, the data revealed that the children’s use of signs in response to teachers’ signs predicted more responsiveness from caregivers. (Paper presented at WAIMH Congress, 2006)
- **Internal States:** Infants and toddlers used signs to express both emotions (e.g., happy, sad, afraid, mad) and feelings (e.g., sleepy, cold, hurt)—both to label their own states and to comment on the states of other children. Such early evidence of empathy is exciting. (In press, *Infant Mental Health Journal*).
- **Conversations:** Two-sign combinations were observed as early as 9 months, 3-sign combinations at 12 months. Also, the children routinely used signs to engage in multi- utterance conversations with teachers, with the longest exchange including 16 turns (back and forth) in a conversation about a mom’s departure and eventual return. Paper presented at the International Society for Gesture Studies, June 2007.)

Conclusion

Because the Baby Signs[®] Program is grounded in research, is so easy to implement, and has so many proven advantages for babies, families, and child care providers, we are confident that the current movement is going to keep on growing until it becomes as accepted and common place for future generations as teaching babies to wave “bye-bye” is today.