

# The Baby Signs® Program

## Scientific Research

Dr. Linda Acredolo and Dr. Susan Goodwyn, authors of the book *Baby Signs: How to Talk with Your Baby Before Your Baby Can Talk*, have conducted over two decades of academic research on the use of sign language with hearing babies, including a long-term study funded by the National Institutes of Health. Here are the highlights from that study.

### Participants

More than 140 families joined the study beginning when their babies were 11 months old. Each family was randomly assigned to a signing or a non-signing group. The groups were equivalent at the beginning of the study in terms of the following characteristics: sex and birth order of the children, their tendency to vocalize or verbalize words, and the parents' education and income levels.

### Assessment

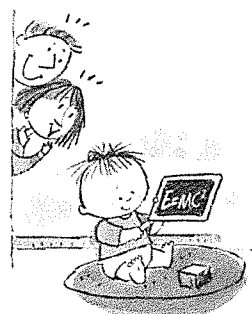
The children were assessed using standardized language measures at 11, 15, 19, 24, 30, and 36 months old. In addition, as many children as could be relocated at age 8 were assessed using the WISC-III IQ test, the most commonly used measure of children's intelligence.

### Results

Twenty-four-month-old signing babies were on average talking more like 27- or 28-month-olds, representing more than a three-month advantage over the non-signers. In addition, the babies who signed were putting together significantly longer sentences. Thirty-six-month-old signers on average were talking like 47-month-olds, putting them almost a full year ahead of their average age-mates. Eight-year-olds who had signed as babies scored an average of 12 points higher in IQ on the WISC-III (Mean = 114, 75<sup>th</sup> percentile) than their non-signing peers (Mean = 102, 53<sup>rd</sup> percentile).

### Conclusion

The Baby Signs® Program helps children develop both language *and* cognitive skills.



## The Baby Signs® Program ECE Training

### Proven Benefits in the Classroom

In the Center for Child & Family Studies at UC Davis, Drs. Acredolo and Goodwyn have uncovered a variety of ways in which babies and their teachers benefit from using the Baby Signs® Program. What they found is that the Baby Signs® Program:

#### 1. Reduces tears and tantrums

Babies don't have to totally rely on pointing, whining, and crying to get their messages across. The result is a quieter, more positive environment for babies and teachers alike.

#### 2. Reduces biting and other aggressive behaviors

The frustration that children feel when they can't communicate often reveals itself in biting, hitting, and other aggressive behaviors. Having signs to use lessens this tension and, therefore, the negative behaviors.

#### 3. Builds trust between babies and teachers

Communicating means connecting. When children feel understood they are more likely to trust that they will be taken care of even though they are separated from their parents. And with this trust come feelings of contentment and well-being.

#### 4. Helps teachers be more observant and responsive

Both the acts of watching for signs and modeling signs result in teachers spending more time simply looking at children. And more time spent looking results in educators picking up other cues from the children that make their teaching more responsive and effective.

#### 5. Promotes positive emotional development

Signing not only makes for happier babies, it also enables them to start expressing other positive emotions—like empathy—which, in turn, gives teachers a chance to acknowledge and reinforce this very important behavior.

#### 6. Provides a "universal" language

Many child development centers these days serve families who speak different languages. This means that the language a child hears at home can be different from the language a teacher uses in the classroom. Signs enable the two to communicate successfully anyway.

#### 7. Jumpstarts intellectual development

One surprising result of Linda and Susan's research was the long-term positive effects of signing on children's intellectual development. Children who used the Baby Signs® Program as infants scored significantly higher on IQ tests when they were 8 years old. You can learn more about this fascinating study in your "Scientific Research" handout.

