


Signing for normally developing infant

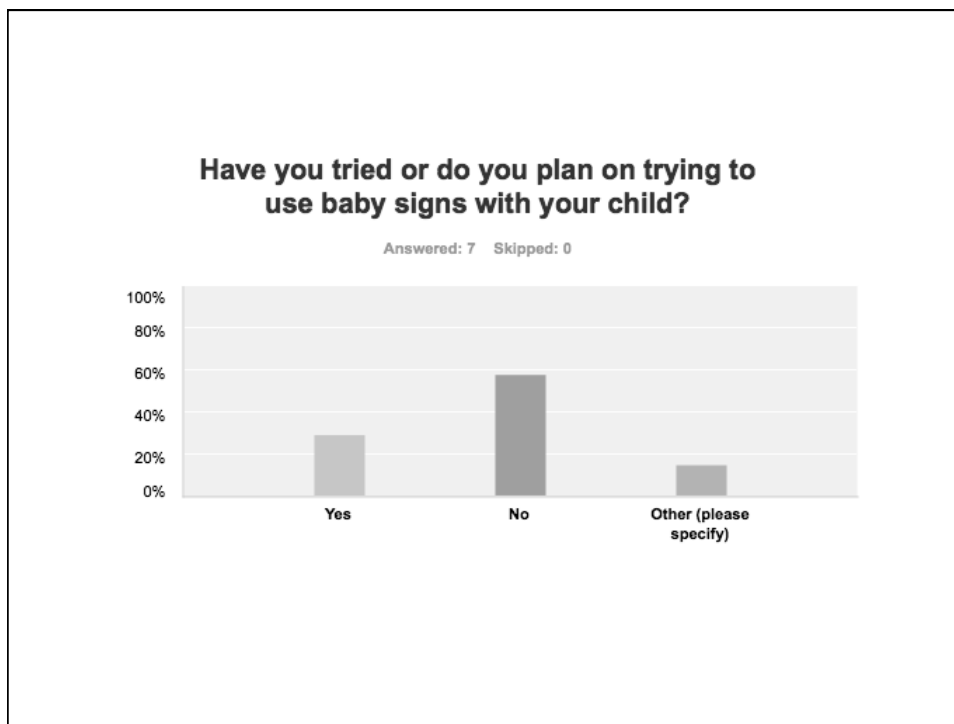


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Baby signs



 <http://youtu.be/NEiMmSq6LFk?t=5s>



Gesture sequence

(Bates et al 1979)



- ☞ Ritual Requests (10mo)
- ☞ Show objects
- ☞ Giving objects (12mo)
- ☞ Communicative pointing (13mo)

Communication of the pre-verbal child



- œ Symbolic gestures by preverbal children is a natural process
- œ Children's abstract gestures from experiences in real world
 - œ Examples: panting for dog, throwing motion for ball

Development of symbolic gestures



- œ Prior to first word children develop gestures to identify wants and needs
- œ Children must distance the symbol from the referent object
- œ Frustration develops among parents and children when they are unable to express needs

Theoretical advantages of signing



- œ Teaching specific signs instead of relying on infant to come up with these naturally
- œ Support of pre-speech development communication
- œ Thought to be easier for infants to master
- œ These skills can be transferred to oral modality once phonetic development is complete
- œ Signs may more closely represent the symbol of an object than a word

Parents want to know...



- œ Will my child learn to speak earlier?
- œ Will this decrease frustration with communication between 10 mo and verbal communication?
- œ Will signing improve their vocabulary? How about their IQ?

Tempering the Terrible Twos



- ∞ Infants are highly motivated to communicate
- ∞ Studies have shown that children acquire first signs before first verbal words
- ∞ May not have fine motor skills yet to verbalize
- ∞ Gestures naturally fill this gap, as do temper tantrums

Advancing language acquisition



- ∞ Early training of symbolic representation of an object
- ∞ Increased caregiver-infant interaction improving vocabulary growth



How did this start

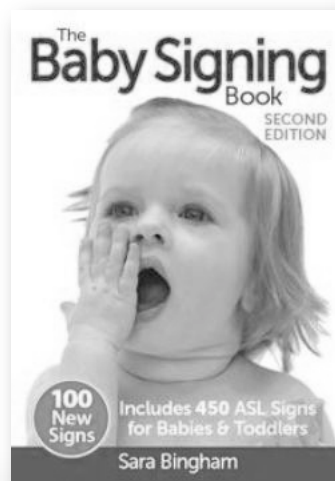


- ∞ Hearing children of deaf parents
 - Research by Bovillian and Orlansky in the 1980s showed accelerated verbal milestone acquisition
- ∞ Began to look at children exposed to symbolic gestures with hearing parents
- ∞ Difference is that this was not a full language, but symbols

Products

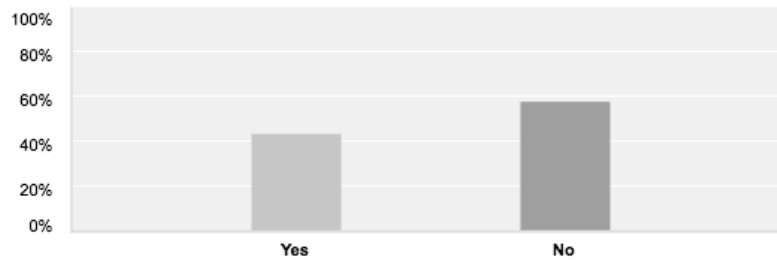


- ∞ Sign with your baby: incorporate signs used among deaf community
- ∞ Baby Signs, Inc: combination of natural occurring symbolic gestures and ASL
- ∞ Both include classes, videos, books and cue cards



Have you taken any baby sign classes or read any baby sign books?

Answered: 7 Skipped: 0



Product Claims



- ☞ Reduces tears, tantrums and frustration
- ☞ Makes learning to talk easier
- ☞ Boosts self-esteem and self-confidence
- ☞ Stimulate intellectual development
- ☞ Strengthens the parent-parent child bond

www.babysigns.com



Review of the literature



- œ 2005 review of the evidence: Teaching gestural signs to infants
- œ A total of 17 out of 1208 identified articles were included
- œ Evidence based on research 1980 through 2003 on normal developing children

Findings of 2005 review



- œ Research highlights
 - Studies among deaf parents in the 1980s showed accelerated language acquisition
 - Among hearing parents improved receptive lang at 19 and 24 months, and expressive at 15 and 24 (tested at 15,19,24,30 and 36)
 - Acredolo and Goodwyn in 2000 found that 8 year olds cognitive development was more advanced in children of parents who were sign-trained.

Conclusions of 2005 Review



- ∞ Authors conclusions about the research
 - The 17 studies suffered from methodological weakness
 - No randomized-controlled trials
 - In the 2 quasi-experimental research programs there was poor comparison groups, small sample sizes, and poor follow up
 - Variation in the method of outcome measurement (parent report vs direct observation)

To sign or not to sign?



- ∞ Randomized control trial of 40 typically developing infants age 8 to 20 months (Kirk, et al)
- ∞ Findings:
 - Infants exposed to gestures did not differ from controls on language outcomes
 - Mothers with gesture training were more responsive to infants non-verbal cues

Confounding



- ☞ Incidence and duration of oral communication
- ☞ Eye-to-eye contact
- ☞ Singing
- ☞ Laughing
- ☞ Caressing

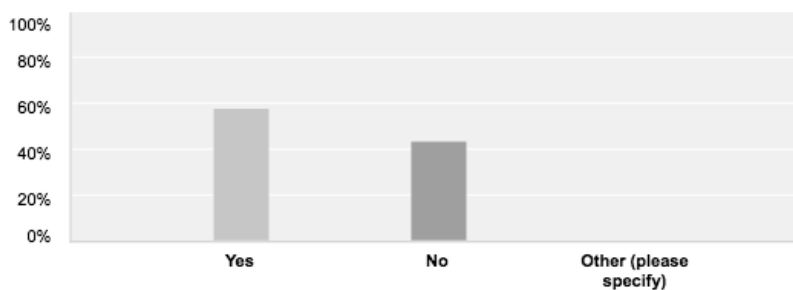
Baby signs and maternal anxiety



- ☞ 178 mother-infant dyads, divided into gesture (n=89) and non-gesture (n=89) groups
- ☞ Maternal stress measured by Parenting Stress Index
- ☞ Gesturing moms found to have higher stress scores
- ☞ This may be participation bias, with higher stress mom's being attracted to these classes

Have you ever recommended families using baby signs with their infant or toddler?

Answered: 7 Skipped: 0



So should parents teach signing?



Pros:

- Parents feel like they are doing something
- Possible increase time parents spend focusing on language development
- Possible improved language acquisition although not proven

Cons:

- Costs
- Pressure on parents to sign
- Possible delay verbal language

AAP opinion



☞ These hands were made for talking

- www.healthychildren.org
- Suggests starting around 8-9 months
- Teach common necessities: eat, drink, sit, sleep, thank you, etc.

References

- ☞ Johnston, et al. Teaching gestural signs to infants to advance child development: A review of the evidence. *First Language* 2005, 25:235
- ☞ Howlett, N, et al. Does 'Wanting the Best' Create more stress? The link between baby sign classes and maternal anxiety. *Infant and Child Development*. 20: 437-445 (2011)
- ☞ Kirk, E et al. To Sign or Not to Sign? The impact of Encouraging Infants to Gesture on Infant Language and Maternal Mind-Mindedness. *Child Development*. 84(2): 574-590 (2013)
- ☞ Goodwyn, SW et al. Impact of symbolic gesturing on early language development. *Journal of Nonverbal behavior*. 24(2): 2000