

# How We Can Make a Difference: Research and Successes in Early Intervention

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Thriving Together: Collaborating to Assure Bright Educational  
Opportunities for Deaf Children into the Future

Boston Children's Hospital

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# What Do Families Have in Common?

- Discovery of having a deaf child unexpected
- Impact of having a deaf child unknown
- Opportunities and potential unknown
- Education and communication unknown
- Resources unknown
- Struggles with communication and technology
- Without support—Experience stress

(Sass-Lehrer, 2008)

*First deaf person they met was...*

# Early Intervention Research

- English language performance better with experiences with Deaf mentors (Watkins, Pittman, & Walden, 1998)
- Social-emotional, cognition, and communication development supported by opportunities for interactions with Deaf adults/children (Calderon & Greenberg, 2003)
- Interactions with Deaf adults reduced families' feelings of grief (Hintermair, 2000)
- Levels of family involvement heavily correlates with academic success (Moeller, 2000)
- High expectations are a predictor for academic success (Bodner-Johnson, 1988)
- Effective and appropriate early intervention program is an asset to families (Benedict, 2003)

# Visual Language Research

- Visual Language reduces risk of language deprivation and presents no risk to acquisition to other languages (Humphries et al, 2012; Grosjean, 2008; Nussbaum, 2008; Malloy, 2003; Yoshinaga-Itano, 2003; Emmorey, 2002; Krashen, 1973)
- Visuality of Humans (Richmond, McCroskey, & Hickson, 2008)
  - 80 percent of information enters through the eyes
  - Eyes and ears are critical for communication across cultures
  - All languages include gestures
  - 65-93 percent of communication is nonverbal

# Cochlear Implants: Why Sign?

- DOD outperformed DOH in cochlear implantation performance (Hassanzadeh, 2012)
- Sign Language as foundation and a predictor for speech development and ability (Yoshinaga-Itano, 2003; 2006)
- CIs are a physical device that can fail (Nussbaum, 2008)
- ASL is a language; CI is a communicative tool

# What Children Need

- Full access to language
- Supportive environments
- Strong family involvement
- Language models
- High expectations
- Role models
- Can-do attitude



# Successes in Early Intervention

# Messages Sent to Families

Communication options

Hearing loss

Intervention

Failed hearing test

Diagnosis

Fix the ear

Deafness

Hearing impaired

Vocationally limited

Grief process

Disability (cannot)

Technology

Communication opportunities

Hearing level, status or differences

Involvement or Identification

Further testing needed

Identification

Modify or coping

Deaf beings or being deaf

Deaf or hard of hearing

Unlimited opportunities

Journey

Cultural (adapt)

Audio, tactile, and visual technology



# Successes Based on Research

- Switch from Centers for Disease Control and Prevention to U.S. Department of Education
- Advisory Councils
- Uniformity of information packets
- Audiologists, SLPs and ASL therapists readily and equally available
- Audiologists, SLPs and ASL therapists covered by insurance
- ASHA-certified audiology training programs having ASL classes
- JCIH document as a model

# Successes Based on Research

- Parent/family involvement in EHDI system
- Parent/Communication system network
  - Meet other families
- Guidance from Deaf/hard of hearing adults
- Fidelity (quality) of intervention
- Auditory Checklist
- Visual Strategies Checklist

[www.jcih.org](http://www.jcih.org), April 2, 2013

# Principles and Guidelines for Early Hearing Detection and Intervention Programs (2007)

- . . . To achieve informed decision-making, families should have access to professional, educational, and consumer organizations; and they should have opportunities to interact with adults and children who are deaf and hard of hearing . . .
- . . . Early interventionists should ensure access to peer and language models. Peer models might include families with normal hearing children as well as children or adults who are deaf and hard of hearing as appropriate to the needs of the infant with hearing loss . . .
- . . . Professional education programs in universities should also introduce training in . . . deaf culture.



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## VISUAL LANGUAGE & VISUAL LEARNING **RESEARCH BRIEF:**



# READING RESEARCH & DEAF CHILDREN

JUNE 2011



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## VISUAL LANGUAGE & VISUAL LEARNING RESEARCH BRIEF:



### THE IMPLICATIONS OF BIMODAL BILINGUAL APPROACHES FOR CHILDREN WITH COCHLEAR IMPLANTS

Photo by the Laurent Clerc National Deaf Education Center/Gallaudet University

JUNE 2012

#### LEARNING FROM RESEARCH

# 6

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#### Key Findings:

- For deaf children with cochlear implants, a visual language<sup>1</sup> such as American Sign Language (ASL) can provide advantages for the child's linguistic, communicative, cognitive, academic, literacy, and psychosocial development.
- Studies in neuroscience confirm that the brain has the ability to learn both visual and spoken languages. Furthermore, learning both a visual and a spoken language does not harm the development of either language.
- The development of early competence in a visual language can effectively facilitate a child's spoken language development.
- A bimodal bilingual language and communication approach—which addresses acquisition and use of both a visual and a spoken language—has the potential to foster early language through the child's vision while also stimulating the child's audition through a cochlear implant.
- Interaction with members of the Deaf community can be beneficial for the deaf child or adolescent's identity formation and social-emotional development.
- With systematic individualized planning, a rich spoken language environment can be provided within a bimodal bilingual setting.



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## VISUAL LANGUAGE & VISUAL LEARNING **RESEARCH BRIEF:**



JUNE 2012

Photo by the Laurent Clerc National Deaf

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# VL2 STORYBOOK APPS

Interactive and Bilingual!



# Yes, We Can Make a Difference!



*Individually, we are one drop.  
Together, we are an ocean.*

-  
**Ryunosute Satoro**



Congratulations on your  
bicentennial!

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