

# How Early Intervention Can Make a Difference: Research and Trends

---

Beth S. Benedict, PhD

Gallaudet University, Communication Studies  
American Society for Deaf Children

# Overview

- Research findings
- Current trends in early intervention
- How can you make a difference?

# What Do Families Have in Common?

*First deaf  
person they  
met was...*



# What Do Families Have in Common?

- *Discovery of having a deaf child is unexpected*
- *Impact of having a deaf child is unknown*
- *Opportunities and potential are unknown*
- *Education and communication are unknown*
- *Resources are unknown*
- *Struggle with communication and technology*
- *Without support---experience stress*

(Sass-Lehrer, 2008)

# Early Intervention Research



# Early Intervention Research

- English language performance better with experiences with deaf mentors (Watkins, Pittman, & Walden, 1998)

# Early Intervention Research

- Social-emotional, cognition, and communication development supported by opportunities for interactions with deaf adults/children (Calderon & Greenberg, 2003)

# Early Intervention Research

- Interactions with deaf adults reduced families' feelings of grief (Hintermair, 2000)



# Early Intervention Research

- Level of family involvement heavily correlates with academic success (Moeller, 2000)

# Early Intervention Research

- High expectations are a predicator for academic success (Bodner-Johnson, 1988)

# Visual Language Research



# Visual Language Research

- Deaf children in deaf families demonstrate greater academic success than deaf children in hearing families (Prinz & Strong, 2000; Brasel & Quigley, 1977; Corson, 1973; Vernon & Koh, 1970)

# Visual Language Research

- Critical age for language appears to be earlier than speech (Sedley & Yoshinaga-Itano, 2002)

# Visual Language Research

- Visual language reduces the risk of language deprivation at no risk to acquisition of other languages (Humphries et al., 2012; Grosjean, 2008; Nussbaum, 2008; Malloy, 2003; Yoshinaga-Itano, 2003; Emmorey, 2002; Krashen, 1973)

# Visual Language Research

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?





# Cochlear Implants...Why Sign?

- Deaf children with cochlear implants who had deaf parents outperformed deaf children with cochlear implants who had hearing parents in speech performance (Hassanzadeh, 2012)

# Cochlear Implants...Why Sign?

- American Sign Language (ASL) is a language; a cochlear implant is a communicative tool
- Children are still deaf and wired to be visual learners

# Cochlear Implants...Why Sign?

- Incidental learning opportunities missed (Yoshinaga-Itano & Sedey, 2000)

# Babies are Visual Beings



# What Children Need

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



# MISINFORMATION

If children sign, then  
they won't talk

Children with cochlear  
implants should not sign

You have to choose  
between signing or  
talking

# MISINFORMATION

Deaf people who sign  
do not read well

ASL is not a “real”  
language

All children should  
try speech first

All deaf people are against  
cochlear implants

Children who speak  
don't need signs

# We CANNOT wait...

- Cannot risk language delay
- Cannot risk delays in other areas of development
- Cannot risk effective family-child interaction



# We CANNOT wait...

- Cannot risk late exposure to ASL
- Cannot risk the impact of academic, linguistic, and cognitive development
- Cannot risk delayed written English

# Issues and Trends

---

# UNHS, NHS, or EHDI

- Universal Newborn Hearing Screening (UNHS)
- Newborn Hearing Screening (NHS)
- Early Hearing Detection and Intervention (EHDI)

# Newborn Hearing Screening and Intervention Act (2000)

1993

- 3 percent screened at birth
- Average age of identification: 2½ years old

Today

- 85-99 percent screened at birth
- Average age identified: 3-6 months

# Hearing Levels

- 1,000: > 4 identified
- 1,000: 1 infant if 50 dB or higher,
- 1,000: 2.5 infants between 30-50 dB loss,

# Resources

- EHDI
- Centers for Disease Control and Prevention (CDC)
- American Academy of Pediatrics (AAP)
- American Speech-Language-Hearing Association (ASHA)
- National Center for Hearing Assessment and Management (NCHAM)

[www.infanthearing.org](http://www.infanthearing.org)

# Messages Sent to Families

## Medical View

---

Communication options

Hearing loss

Intervention

Failed hearing test

Diagnosis

Grief process

## Socio-cultural View

---

Communication opportunities

Hearing level/status

Involvement

Refer with explanation

Identification

Journey

[http://www.infanthearing.org/ehdi-ebook/2013\\_ebook/21Chapter20DeafCommunity2013.pdf](http://www.infanthearing.org/ehdi-ebook/2013_ebook/21Chapter20DeafCommunity2013.pdf)

# Maryland's Advisory Council

- One physician with expertise in childhood hearing loss
- Three representatives from education
  - One from the Maryland State Department of Education
  - One from the Maryland School for the Deaf
  - One from a local education program
- One representative from the Maryland Department of Health and Mental Hygiene
- One mental health professional with expertise in the deaf field
- Two parents of deaf or hard of hearing children
- One Maryland Association of the Deaf representative\*
- One audiologist with expertise in childhood hearing loss
- One AG Bell representative

\* article in MAA



# Joint Committee on Infant Hearing

- Alexander Graham Bell Association for the Deaf and Hard of Hearing (2)
- American Academy of Audiology (2)
- AAP (3)
- American Academy of Otolaryngology-Head and Neck Surgery (2)
- ASHA (3)
- Council on Education of the Deaf (2)
- Directors of speech and hearing programs in state health and welfare agencies (3)

[www.jcih.org](http://www.jcih.org)

# Principles and Guidelines for EHDI Programs (2007)

- ✓ 100 percent of newborns to be screened
- ✓ Audiological evaluation before 3 months old
- ✓ Referral from hospital within two working days
- ✓ Follow-up by 3 months old if needed

# Principles and Guidelines for EHDI Programs (2007)

- ✓ Provide access to early intervention
- ✓ An Individualized Family Service Plan (IFSP) must be signed within 45 days of referral
- ✓ Enrolled in an early intervention program with knowledgeable professionals about overall child development and communication options by 6 months old

# JCIH Principles and Guidelines for Early Intervention After Confirmation that a Child is Deaf or Hard of Hearing

([www.aap.org](http://www.aap.org))

- ✓ Timely entry into an early intervention program
- ✓ Service coordinator with knowledge and skills working with deaf and hard of hearing babies (IFSP)
- ✓ Skills of the early intervention providers
  - Service providers that teach ASL must be native or fluent

# JCIH Principles and Guidelines for Early Intervention After Confirmation that a Child is Deaf or Hard of Hearing

([www.aap.org](http://www.aap.org))

- ✓ Specialists working with babies with additional disabilities
- ✓ Non-native English and multicultural populations
  - Provide support, mentorship, and guidance through families

# JCIH Principles and Guidelines for Early Intervention After Confirmation that a Child is Deaf or Hard of Hearing

([www.aap.org](http://www.aap.org))

- ✓ Progress monitoring with developmental assessments and transitions
- ✓ Children with special monitoring needs
- ✓ Parent/family involvement in the EHDI system
- ✓ Parent/communication system network
  - Meet other families

[www.jcih.org](http://www.jcih.org)

# JCIH Principles and Guidelines for Early Intervention After Confirmation that a Child is Deaf or Hard of Hearing

([www.aap.org](http://www.aap.org))

- ✓ Guidance from deaf and hard of hearing adults
- ✓ Fidelity (quality) of intervention
- ✓ Auditory checklist
- ✓ Visual strategies checklist

[www.jcih.org](http://www.jcih.org)

# Why Include the Deaf Community?





# How Can You Make a Difference?

---

# Get Involved

- American Academy of Audiology
- ASHA
- EHDI
- Meetings and conferences
- American Society for Deaf Children
- Hands and Voices
- AG Bell

# Get Involved

- Get on UNHS, NHS, or EHDI advisory council
- Actively represent state and national associations of the deaf deaf mentor programs
- Partnerships
  - Deaf and hearing adults (allies)
  - Early intervention and educational programs
- Shared reading programs
- Gallaudet University's Infants, Toddlers and Families Interdisciplinary Graduate Certificate Program  
([www.gallaudet.edu/x57447.xml](http://www.gallaudet.edu/x57447.xml))

# Resources

- Visual Language and Visual Learning (VL2)  
(<http://vl2.gallaudet.edu>)
- Laurent Clerc National Deaf Education Center  
([www.gallaudet.edu/clerc\\_center](http://www.gallaudet.edu/clerc_center))
- Signing Times  
([www.signingtime.com](http://www.signingtime.com))
- ASL websites and classes
  - Include families
- Books
  - Bilingual Deaf and Hearing Families (Bodner-Johnson & Benedict, 2012)
  - American Deaf Culture (Holcomb, 2012)

NSF supported Science of  
Learning Center on Visual  
Language and Visual  
Learning, SBE-0541953,  
Gallaudet University.

# RESEARCH BRIEF:



## ADVANTAGES OF EARLY VISUAL LANGUAGE

JANUARY 2011





NSF supported Science of  
Learning Center on Visual  
Language and Visual  
Learning, SBE-1041725.

## 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



NSF supported Science of  
Learning Center on Visual  
Language and Visual  
Learning, SBE-0541953.

# VISUAL LANGUAGE & VISUAL LEARNING RESEARCH BRIEF:

A photograph of a young child with short brown hair, wearing a red t-shirt with a graphic, sitting on a white blanket outdoors on a grassy area. The child is looking down at an open book or paper in their hands.

## READING RESEARCH & DEAF CHILDREN

JUNE 2011





NSF supported Science of  
Learning Center on Visual  
Language and Visual  
Learning, SBE-1041725.

# VISUAL LANGUAGE & VISUAL LEARNING RESEARCH BRIEF:



## ASL/ENGLISH BILINGUAL EDUCATION: MODELS, METHODOLOGIES, AND STRATEGIES



JUNE 2012

Photo by the Laurent Clerc National Deaf



LAURENT CLERC  
NATIONAL DEAF EDUCATION CENTER



[HOME](#)

[ABOUT](#)

[STORYBOOKS](#)

[NEWS](#)

[MEDIA KIT](#)

[CONTACT](#)

# VL2 STORYBOOK APPS

Interactive and Bilingual!



# Resources

- Websites
  - [www.aslized.org](http://www.aslized.org)
  - [www.jaclynvincent.com](http://www.jaclynvincent.com)
  - [www.deafchildren.org](http://www.deafchildren.org)
- Use of Social Media
  - Why ASL? (Jackerson, 2011)
  - Early Intervention: The Missing Link (Benedict, 2011)
  - Storysigning Strategies (Holcomb, 2012)
  - Iowa School for the Deaf (ISD, 2011)
  - Theory of Mind (Lewis, 2012)

# Advocacy Strategies

---

Empowerment

Collaboration

Litigation

Education and Media

Negotiation

Protest/Rally

Pilot or Model Programs

Public Education and Media

# Yes, We Can Make a Difference!

Individually, we are one drop.

Together, we are an ocean.

*~ Ryunosute Satoro*

Please submit your questions  
using the chat box.

