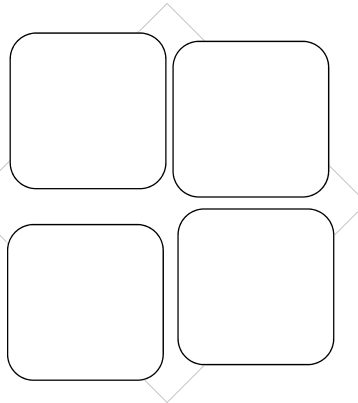




THE UNIVERSITY of
TULSA



**Presentation by
Dr. Sharon Baker, Director of Deaf Education
The University of Tulsa
Tulsa, Oklahoma**

Preparing teachers to work with deaf and hard of hearing children since 1967

www.utulsa.edu

Scholarships available from the U.S. Department of Education

1



Today's presentation will provide information about....

- Use of early sign language in children who are deaf or hard of hearing, including cochlear implant candidates
- ASL and English acquisition
- Deaf and hard of hearing children who are bimodal and/or bilingual

2

Terminology: Bimodal and/or Bilingual

- **An ASL/English Bilingual Approach**

- *Bilingual* means the development and use of two or more languages.
- Spoken English is a component of this approach. It is valued, encouraged, and incorporated and is specific to an individual child's characteristics and goals.

- **What Does *Bimodal* Mean?**

- *Bimodal* refers to the development and use of language in more than one modality. ASL is a signed language and English is a spoken language (*spoken* and *signed* are the "modes" to which "bimodal" refers).
- Bimodal development will be unique to each child. All children who can see have access to ASL; however, access to spoken English will be specific to each child's hearing levels and use of technology.

3

Deaf and Hard of Hearing Children



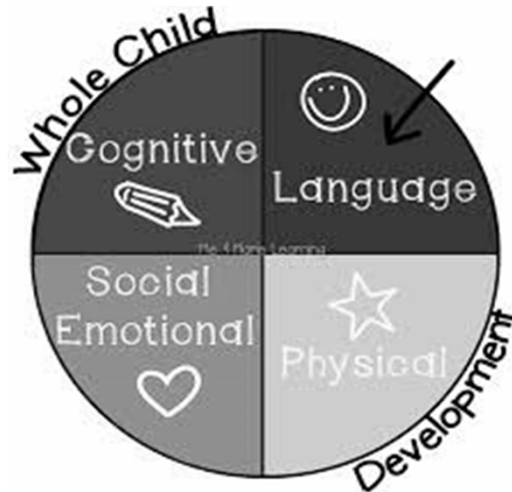
A diverse population of children who vary greatly by...

- Cause of hearing loss
- Age of onset
- Level of hearing loss
- Use of hearing technologies
- Parents hearing status
- Socio-economic variables
- Resilience of the family
- Presence of other disabilities
- Adopted
- Access to language

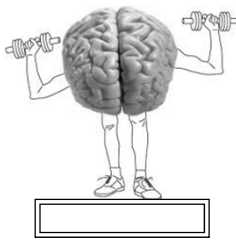
4



What's the Big Deal about Language?



5



Language

Major theorists have stated that....

- The brain has an innate capacity for language; it is language ready
- Language is not just communication, but communication fuels language
- Language and cognition have a mutually beneficial relationship
- Language is necessary for cognitive development, especially executive function skills
- Language development supports later academic learning

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NSF supported Science of Learning Center on Visual Language and Visual Learning, 1000-000102, Gallaudet University

VISUAL LANGUAGE & VISUAL LEARNING
RESEARCH BRIEF:



VISUAL LANGUAGE & VISUAL LEARNING

ADVANTAGES OF EARLY VISUAL LANGUAGE

JANUARY 2011



LEARNING FROM RESEARCH
2

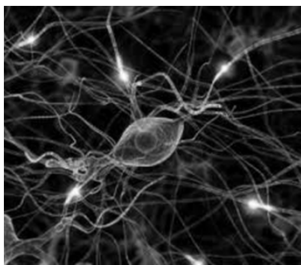
Key Findings on the Advantages of Early Visual Language:

- The brain is most receptive to language acquisition during “sensitive periods” early in a child’s development.
- Deaf and hard of hearing children who receive early intervention services have been found to have better language outcomes up to age five.
- High levels of family involvement have been found to produce greater language development outcomes in deaf and hard of hearing children.
- Acquiring a complete first language during early childhood is critical for later reading comprehension.
- Learning two languages (that is, American Sign Language (ASL) and English) is advantageous for deaf and hard of hearing children.
- A mother’s signing skills are predictive of later language development in deaf or hard of hearing children.
- A language foundation is an important factor in spoken language development.

7



The brain is most receptive to language acquisition during “sensitive periods” early in a child’s development.

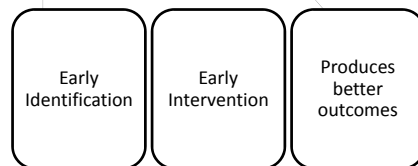


- Language does not just happen in one swift simultaneous event.
- Aspects of language develop in different stages and different times in children.
- Vocabulary does not seem to have a critical period.
- The syntax (grammar) of a language, however, must be acquired before entering school.
- Having full syntactical command of one language supports the learning of another language.

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Deaf and hard of hearing children who receive early intervention services have been found to have better language outcomes up to age five.



- Early identification and early intervention produce positive outcomes up to age 5.
- Early identification and early intervention have been found to moderate factors that previously had negative effects on language (socio-economic status, presence of an additional disability)

9



High levels of family involvement have been found to produce greater language development outcomes in deaf and hard of hearing children.



- High levels of family involvement produce higher language outcomes.
- Highly involved families tend to be dedicated to learning how to communicate with their child.
- High levels of involvement can buffer the negative effects of late enrollment in early intervention services.

10



Acquiring a complete first language during early childhood is critical for later reading comprehension.

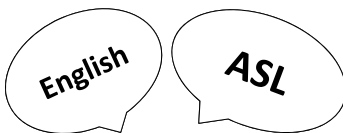


- Deaf and hard of hearing children must acquire a complete language (L1) before they enter school.
- ASL often functions as the L1 and supports the acquisition of spoken/written English.
- Delay in acquisition of a first language produces poor language performance.
- Delay in acquisition of a first language impacts on reading and academic achievement later.

11



Learning two languages [ASL and English] is advantageous for deaf and hard of hearing children.



- Bilingualism has been found to produce cognitive flexibility.
- Bilingual or bimodal approaches ensure that if one pathway is less effective, another pathway can be used.
- Delay of language acquisition has negative consequences on cognition, academic achievement, and social and emotional health.
- It creates life-long repercussions.

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A mother's signing skills are predictive of later language development in deaf or hard of hearing children.



- It is challenging for parents to learn signs, but there are many more resources than in the past.
- Family training is necessary for birth - 3
 - www.dcmp.org
 - Local libraries
 - Deaf community socials in your community
- While learning signs, there are other communication strategies parents can use.
- Encourage parents not to give up.

13



A language foundation is an important factor in spoken language development.

- Sign language is sometimes withheld from deaf children because of the belief that it interferes with spoken language development.
- There is no evidence that sign language impedes spoken language.
- In fact, spoken language skills increase as children learn more gestures and signs.
- Proficiency in ASL has been found to positively influence spoken language development and English literacy.


14



Share with families


- ➡ Families who are more involved have children that perform better.
- ➡ Early exposure to sign language provides certain cognitive advantages.
- ➡ There is no evidence that signing interferes with spoken language development.
- ➡ Signing early may serve to facilitate spoken language.

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NSF supported Science of Learning Center on Visual Language and Visual Learning, DGE-0541903, Gallaudet University


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



VISUAL LANGUAGE & VISUAL LEARNING

**THE IMPORTANCE OF
FINGERSPELLING FOR READING**

JULY 2010



LEARNING FROM
RESEARCH

1

Key Findings on the Importance of Fingerspelling for Reading:

- Deaf families fingerspell to their deaf children when they are very young.
- Early exposure to fingerspelling helps these children become better readers.
- Fingerspelling, reading, and writing are interrelated.
- Fingerspelling facilitates English vocabulary growth, and larger the lexicon, the faster new vocabulary is learned.
- Fingerspelling positively correlates with stronger reading skills. Deaf and hard of hearing children who are good fingerspellers are good readers, and vice versa.

16



Early exposure to fingerspelling helps children become better readers.

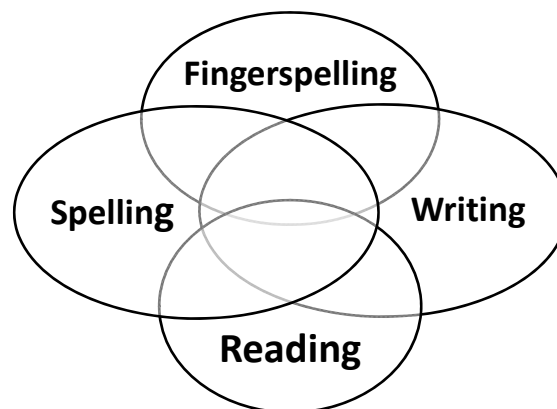


- Encourage parents to fingerspell with their young children.
- Very young deaf children perceive fingerspelled words as a sign until they learn the alphabet.
- Deaf children with early fingerspelling have similar vocabulary as hearing children at 24 months.
- Older children with early fingerspelling tend to read at higher rates than children of hearing parents.
- Fingerspelling ability significantly correlates with reading comprehension.

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Fingerspelling, reading, and writing are interrelated.

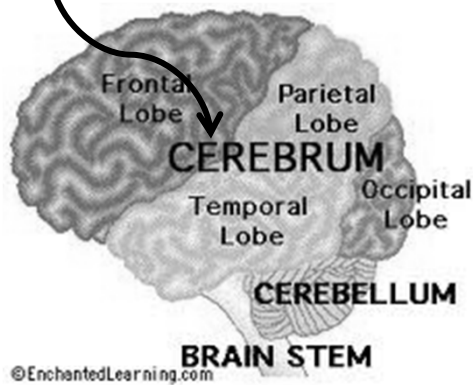


- The Visual Form Area of the brain helps us understand why.

18



Left Mid-Fusiform Gyrus Visual Word Form Area



19

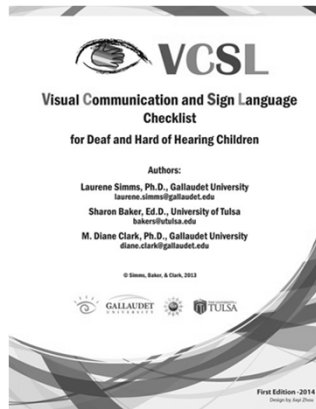


Share with Families

- ➡ Start fingerspelling early with children who are deaf or hard of hearing.
- ➡ Fingerspell before children understand the concept of the alphabet.
- ➡ Adults need practice to be fluent in fingerspelling.
- ➡ Early fingerspelling is associated with better literacy outcomes.

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Assessing Sign Language Development



- A standardized assessment of early visual communication.
- Normed on signing deaf children birth through five years of age.
- vl2@Gallaudet.edu for ordering information