Demonstrating Key Steps in Achieving Literacy

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GALLAUDET UNIVERSITY | VISUAL LANGUAGE AND VISUAL LEARNING

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WELCOME

Introduction

Research

Supporting Language Development

Bridging Language to Literacy

Resources & Final Questions

Introduce Yourselves

Raise your hand if you are … educator, researcher, parent, etc?

What questions do you have about literacy development?

Which are you mostly curious about? Activities, resources, or information (or all of them)?

What do you hope to gain from this session at the end?

And at end of each section, there will be hands-on activities/discussion to help apply the information provided today!

Research

What do we know?

This section presents some of the work conducted over the past decade by researchers at the National Science Foundation and Gallaudet University's Science of Learning Center on Visual Language and Visual Learning (VL2).

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National Institute for Literacy

Question from the National Literacy Panel

What are the skills and abilities of young children (age birth through five years or kindergarten) that predict later reading, writing, or spelling outcomes?

Lonigan, C. J., & Shanahan, T. (2009). Developing Early Literacy: Report of the National Early Literacy Panel. Executive Summary. A Scientific Synthesis of Early Literacy Development and Implications for Intervention. National Institute for Literacy.

NLP's answers (But are they appropriate or normed for deaf children?):

- alphabet knowledge (AK): knowledge of the names and sounds associated with printed letters

- phonological awareness (PA): the ability to detect, manipulate, or analyze the auditory aspects of spoken language (including the ability to distinguish or segment words, syllables, or phonemes), independent of meaning

- rapid automatic naming (RAN) of letters or digits: the ability to rapidly name a sequence of random letters or digits

- RAN of objects or colors: the ability to rapidly name a sequence of repeating random sets of pictures of objects (e.g., "car," "tree," "house," "man") or colors

- writing or writing name: the ability to write letters in isolation on request or to write one's own name

- phonological memory: the ability to remember spoken information for a short period of time.

Which input/method is optimal for language & literacy development?

Speech?

Sign?

Visual input?

Auditory input?

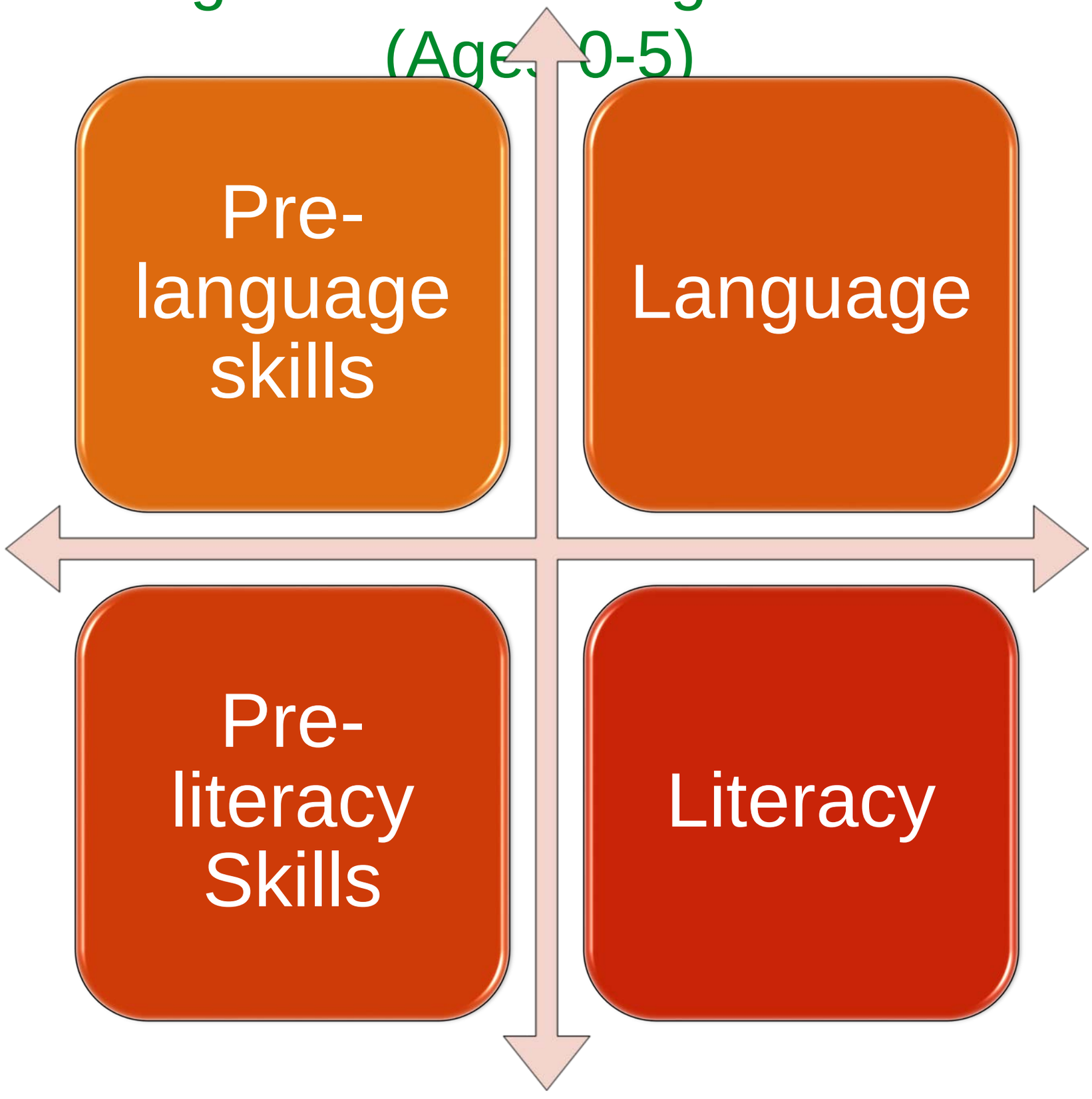
When, which, more than one?

Which input/method is optimal for language & literacy development?

Don’t choose...
The more, the better.

As EI professionals and families are typically familiar with English applications, more information will be provided today on the use of ASL to support your abilities to incorporat e both languages, but the principles/concepts are transferrable to English or any other home lan guage

Early Access to Language, Fingerspelling, and Letter Writing as The Building Blocks to Literacy (Ages 0-5)

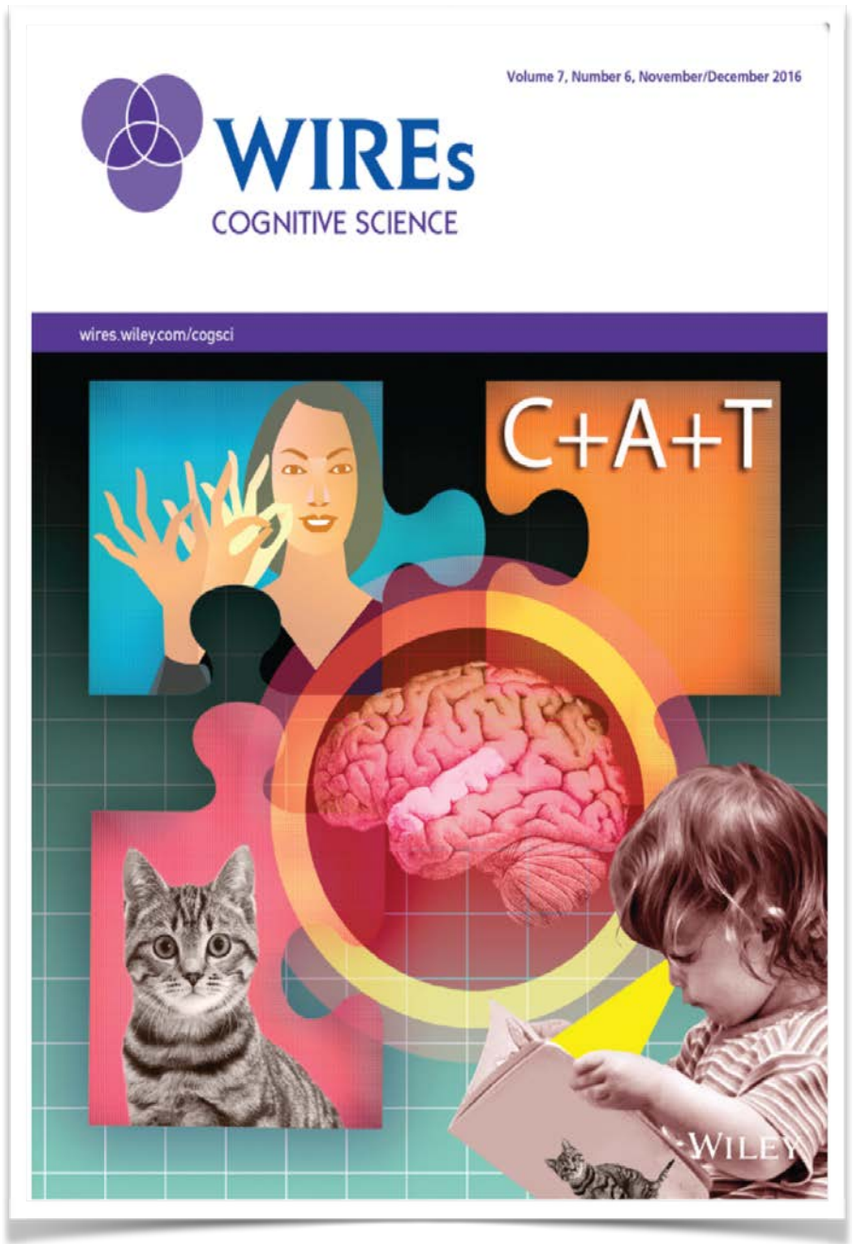


VL2 Studies

Visual Sign Phonology & its role in the development of literacy

Fingerspelling- so much more than a sequencing of handshape map to printed letters

Visual Sign Phonology



"…Exposure to natural sign language in early life equally affords the child' s discovery of silent segmental units in visual sign phonology (VSP) that can also facilitate segmental decoding of print"

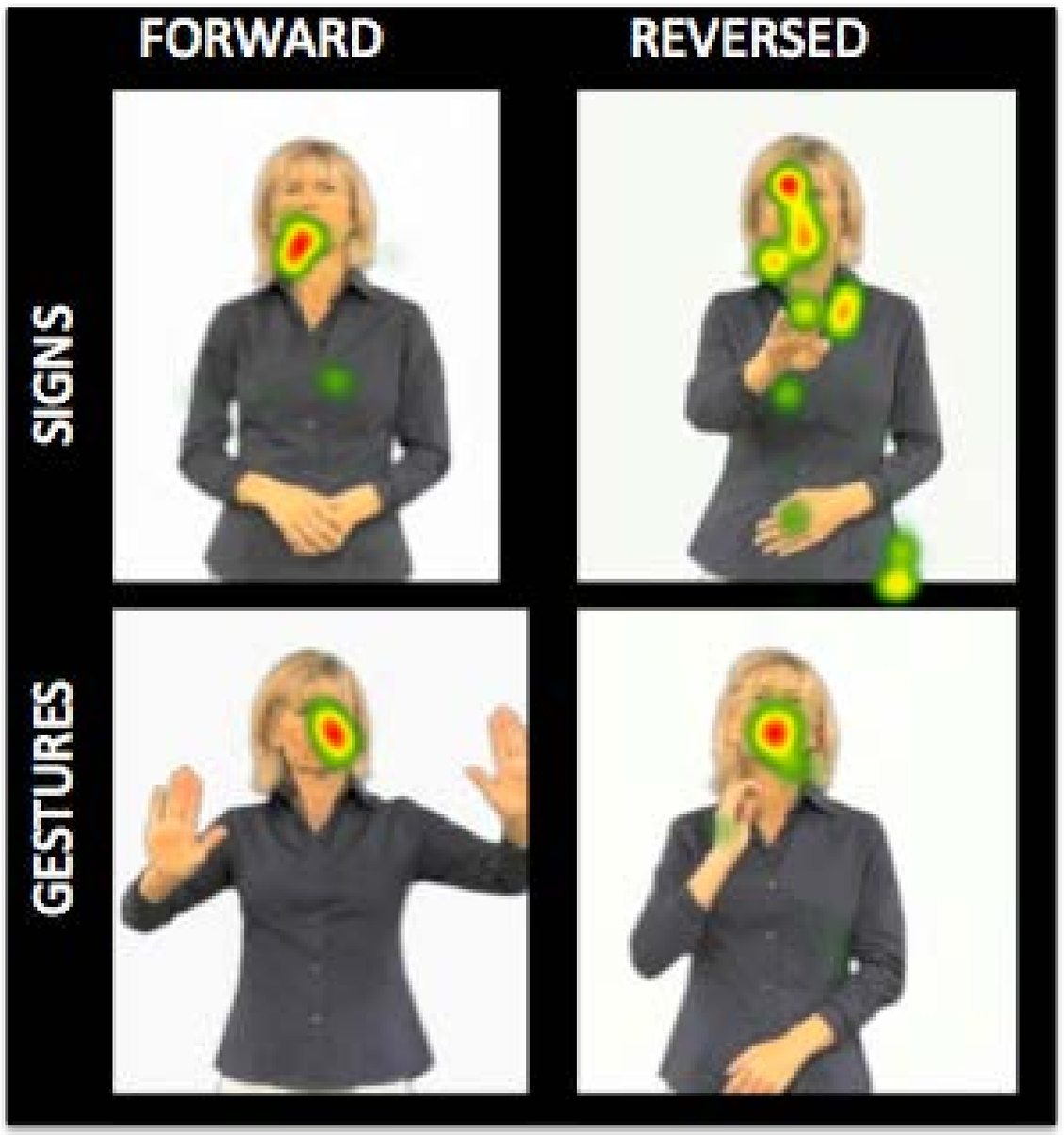
"… biological equivalence in signed and spoken languages."

"…The crucial link for early reading success is not between print and sound , but between print and the abstract level of language organization that we call phonology— signed or spoken."

Petitto, L. A., Langdon, C., Stone, A., Andriola, D., Kartheiser, G., & Cochran, C. (2016). Visual sign phonology: insights into human reading and language from a natural soundless phon ology.
Wiley Interdisciplinary Reviews: Cognitive Science, 7(6), 366-381.

Eye-gaze

Infants exposed to ASL are sensitive to visual sign phonology—



Infant Eye-tracking Study

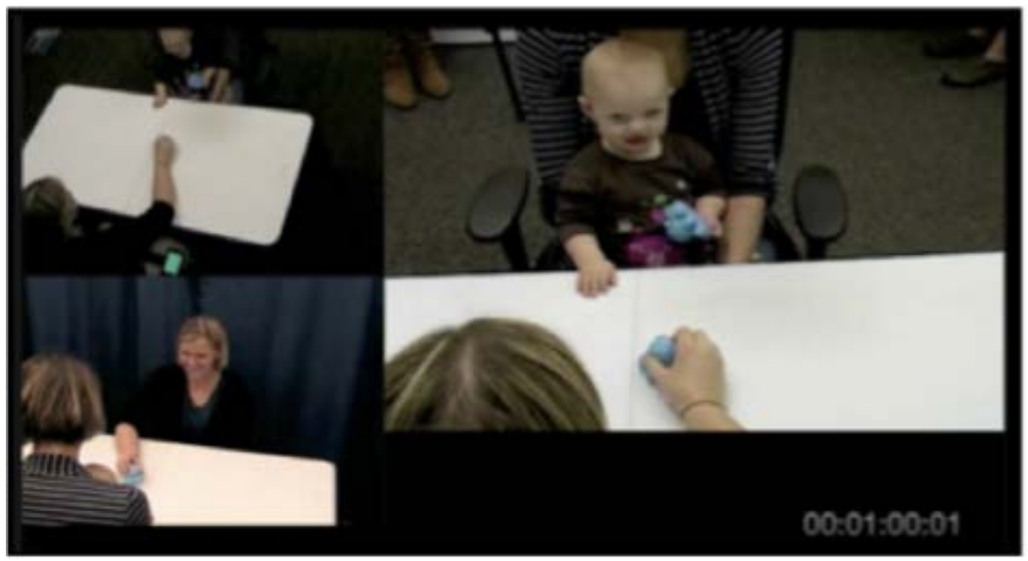
forward signs
vs.
reversed signs
vs.
gestures

Bosworth, Hwang, & Corina, 2013

Eye Gaze & Shared Attention

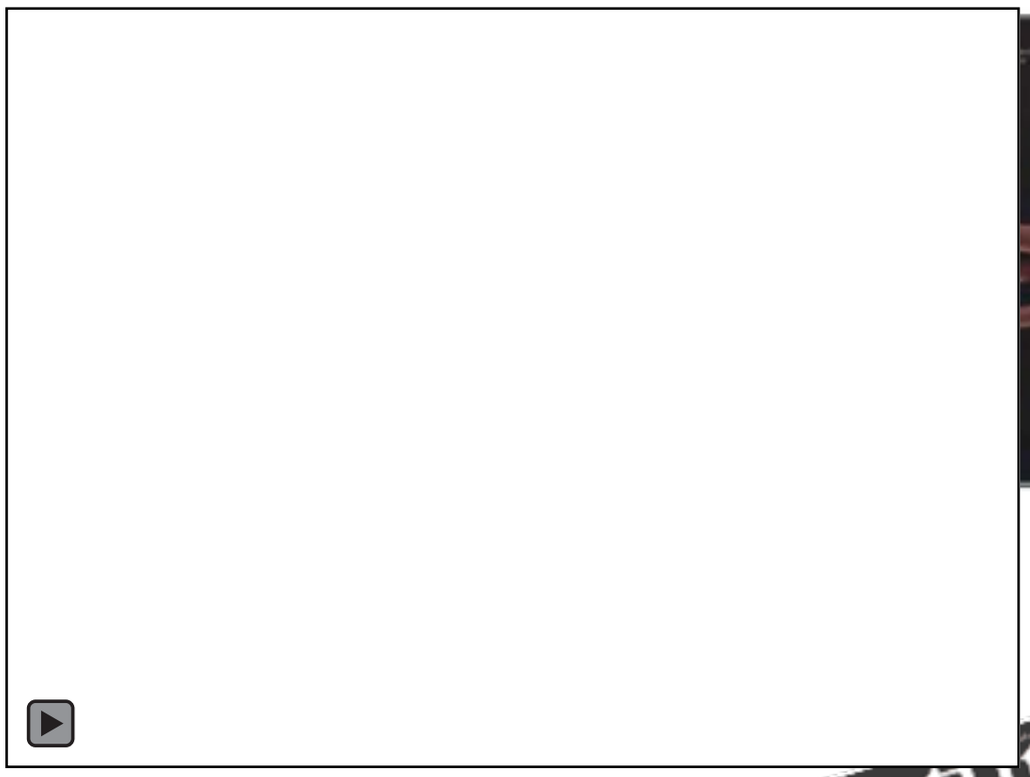
- Children exposed to and use ASL have better and frequent eye contact with the caregiver
- Learn more about the world while also gaining social skills
- Stronger vocabularies→language→ reading→literacy development

All that helps with learning and communicating efficiently at home and at school

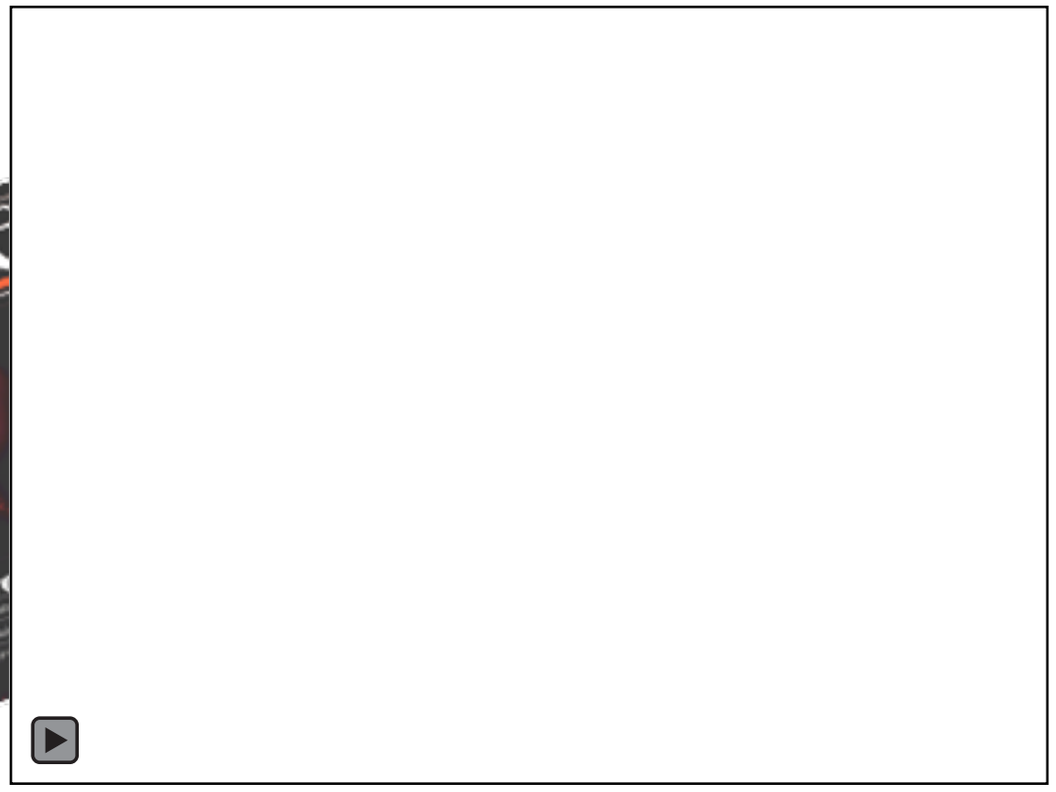


Most, Rothem, & Luntz, 2009; Singleton & Crume, 2010; Lieberman, Hatrak, & Mayberry, 2011; Lieberman, Hatrak, & Mayberry, 2014; Singleton, Brooks & Meltzoff, in progress

Babbling



Petitto & Marentette, 1991



Deaf children-
babbling on the hands at 6 months

Petitto, et al. 1991

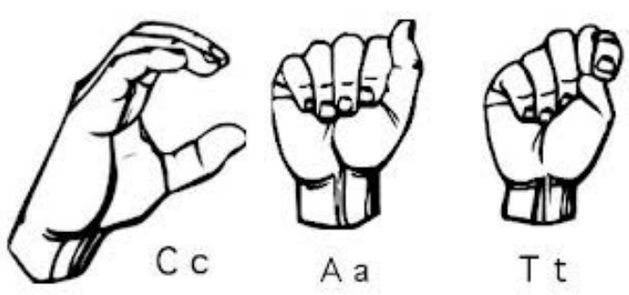
Fingerspelling

Children learn to fingerspell twice- learn fingerspelling first as lexical items
(Padden, 2006).

Fingerspelling has sonority: It is not simply a representation of printed letters on the hands
(Stone, Petitto, & Bosworth, submitted.).

Fingerspelling is a strong link between ASL and English print
(Allen, 2015)

Fingerspelling Development



Handspeak.com

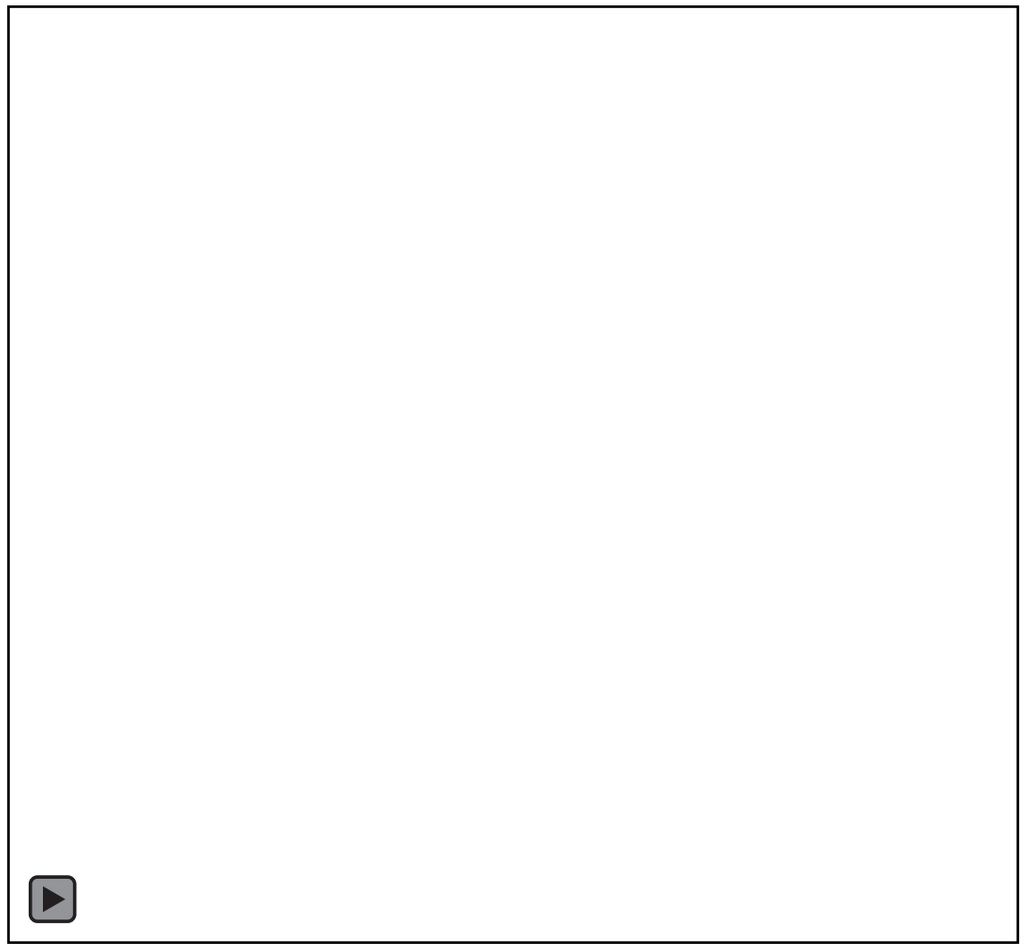
Fingerspelling to Letter Writing

Early ASL Receptive Proficiency

Stronger Letter Recognition Skills

Letter-writing skills

Reading Skills



These skills help them acquire later reading comprehension skills as well as abilities in math and other school subjects. (This applies to parents (deaf or hearing) who use sign language.)

Allen, 2015; Allen & Morere, 2013

In sum.. The findings show that…

Sign and emergent literacy skills develop TOGETHER

At an early age

Phonology is not bound to sound

But to the sub lexical units of language, spoken, signed, or written

Writing letters plays a role in literacy development

But not necessarily related to mastery of phonemes

Think-Pair-Share

- What was expected?
- What have you learned?
- What was surprising?
- What questions or thoughts came to mind?

Supporting Language Development

In Everyday Activities

Bring the world to your child

When making connections between concepts and words…trace or point and mouth/speak, sign/fingerspell, use all resources at hand.

Quality and Interactivity

30 million word gap study

Quality or quantity?

Quality = 16%
Quality + Quantity = 10%
Quantity = 1%

Quality —>

Gestures and words

Fluid and connected

playful routines and rituals

Quantity—>

mother’s words per minute

Hirsh-Pasek, Adamson, Bakeman, Owen, Golinkoff, Pace, Yust, & Suma, submitted

Closing the 30 Million Words Gap

TUNE IN

TALK WITH THE CHILD

TURN- TAKING

http://thirtymillionwords.org

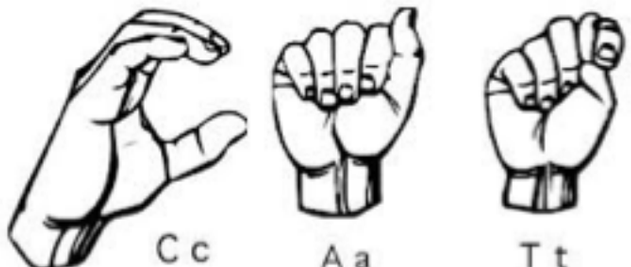
Fingerspelling at Home

Expose them to fingerspelling

Chaining between object, sign, fingerspelled form, and text

Sandwiching between fingerspelled form and lexicalized form.

If there are signs created for grocery stores, towns, or objects, expose them to the fingerspelled word anyway



Converse With Your Child

- **Constant** language access/exposure- Be with the child, play with the child, experience with the child. Talk about what you are doing

  (THINK INCIDENTIAL LANGUAGE!)

- Discuss what you just did together
- A child that does not understand what is going on often becomes frustrated or sad and later reports disconnection with his/her family.
- Important questions to ask yourself as a parent/teacher:
  - Can you figure out what the child wants?
  - Can the child tell you what he/she wants?

Common questions from parents

- What can I do to include my deaf child at mealtimes or at family events?
- I don’t know much sign language, how can I support my child’s language development?
- What should I be doing while my child plays?
- I want to sing songs with my child, how can I do that?
- What is the best way to read with my child?

Mealtimes at Home

Concept: Mealtimes are opportunities to create the culture of communicating.

Examples:

- Involving young children by shifting attention, asking questions or labeling emotions

To keep in mind:

- Deaf children often feel left-out

Tips:

- Tell topic then follow up with conversation summary
- Communication plan
- Assign a role to the child
- Take steps to engage everyone
- Do activities during snack times

Baby A- identified at 13 months, started signing then within 4 months, knew over100 signs

Pretend Play/Trips

Concept: Stimulation + Engagement = Rich Language Development

Examples: Encourage imagination and build on it

OVERcommunicating is better than undercommunicating

Tips:

Get down and play on child's level and with child's lead

- Communicate with child before, during and after
- Inform, Engage, and Review

Promote Interaction

Invite Deaf adults or deaf children over to your place

Attend ASL/Book Sharing events with your family

Watch ASL Stories or poetry on DVD/Ebooks- repeat some signs

Discuss with your table & Share Out

1) How will you apply those tips in real life, either with your child or in working with parents?

2) What additional activities would you come up with in one of the areas (Conversations, Mealtimes, Pretend Play/Trips)?

Bridging Language to Literacy

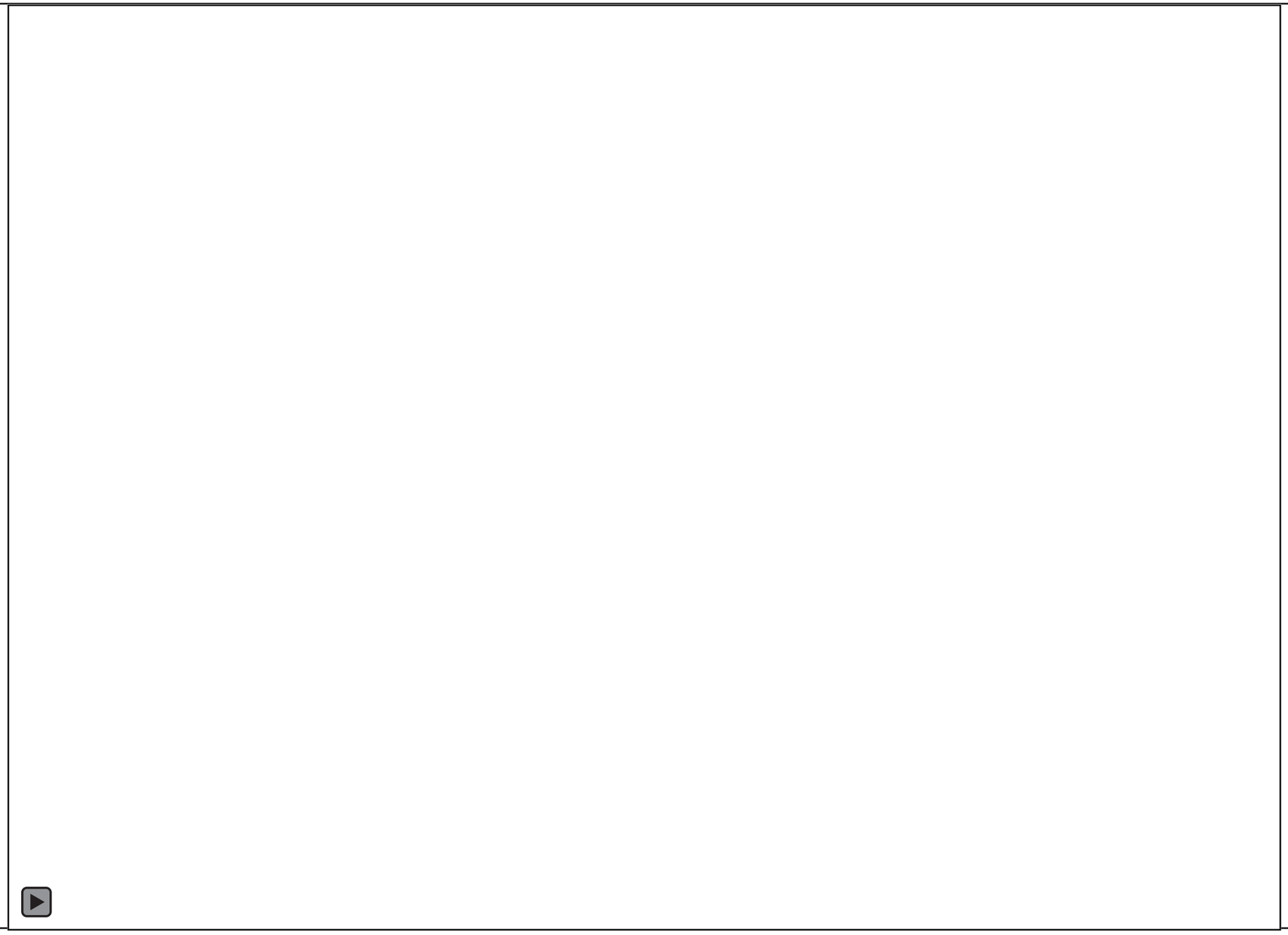
Making purposeful connections

Language Play

- Deaf children need language experiences & ASL phonological awareness
- Playing with language helps build linguistic foundations & executive functions (working memory)
- Helps with building vocabulary, semantic knowledge
- They are also fun to do!

Allen & Morere, 2012; Goldin-Meadow & Mayberry, 2001; McQuarrie & Abbott, 2013; Morford, Wilkinson, Villwock, Pinar, & Kroll, 2011

ASL PHONOLOGY- HANDSHAPE REPETITION



Noun-Verb Rhythm

NURSERY RHYMES - NUMERIC REPETITION

WORKING PROTOTYPE: “ONE TO TEN”

How do we encourage early readers to make connections between the meaning to the printed word?

Whole-To-Part and Part-To-Whole Design

Use of high-quality illustrations to help with text

Fingerspelling for vocabulary words

Promotes vocabulary learning and comprehension WITHIN context of whole story

Specific Strategies to Connect Print and Sign

- Fingerspell the names of the main characters of the book
- Use chaining
- Explain the meaning of words
- Make sound words explicit
- Identify similarities in English words (three/tree)
- Identify different characters: when dialogue occurs, use role shifting to identify different characters.

Berke, 2014

How to boost motivation to read at home

Model good reading behavior

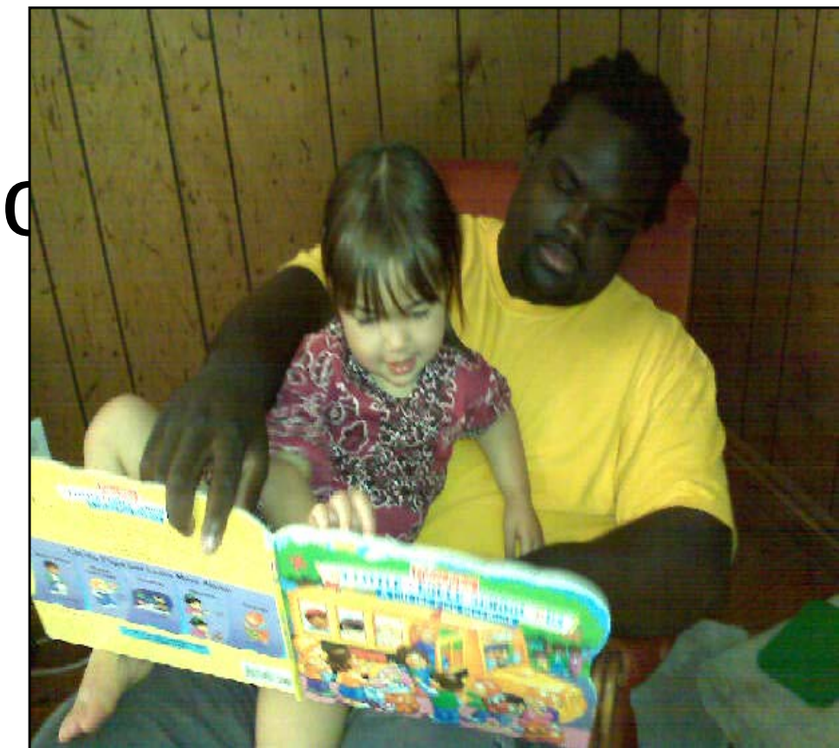
View a storyteller or you read aloud to them

Make reading a fun part of their daily routine

Broaden their concept of reading

Texting, social media, closed captio

Magazines and comics are fine.



Let’s Practice!

<u>Activities:</u>

Try out reading books with a partner using the tips

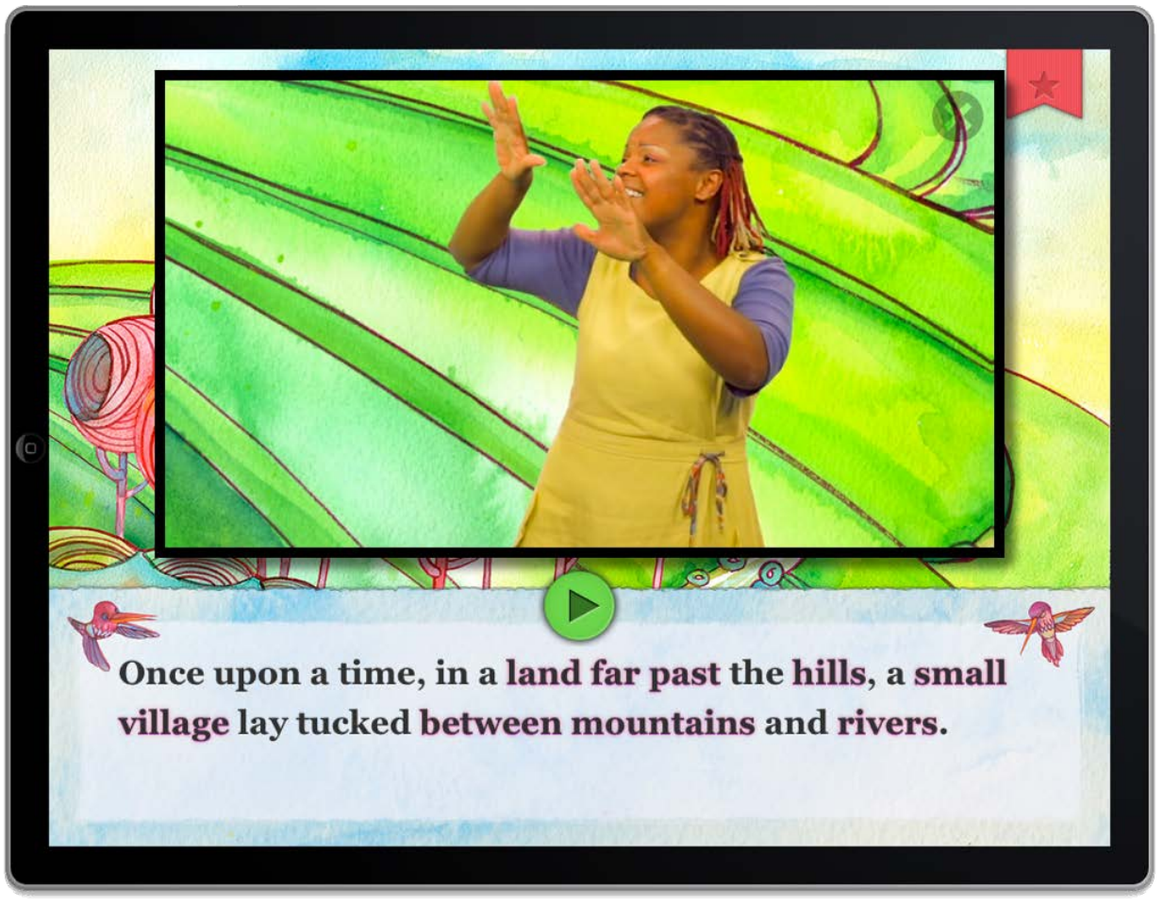
Example with VL2 storybook apps

“Watch” Mode

Full ASL story mode, shows full prosodic structure

Strong Narrative and ASL Models

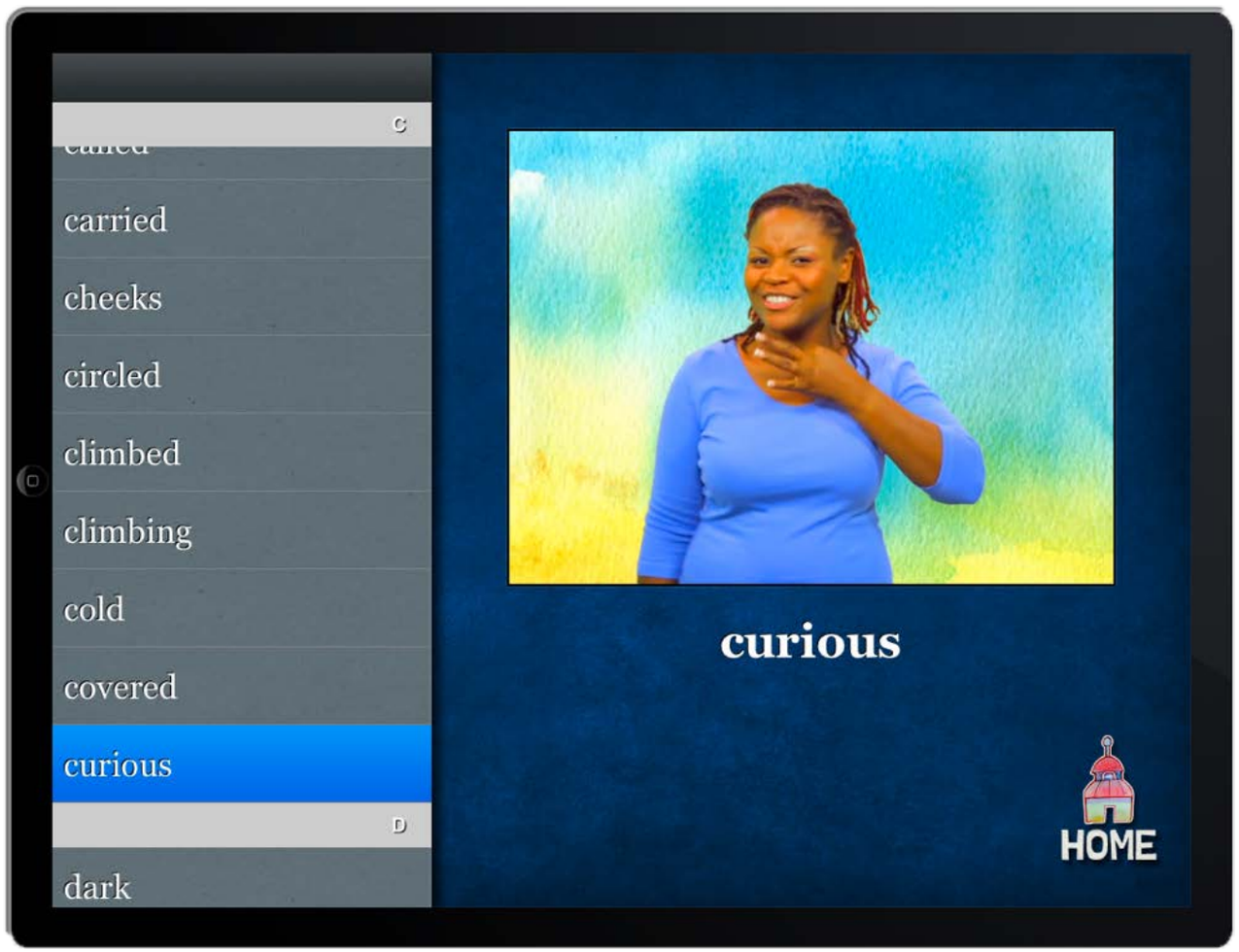
“Read” Mode



Sentential structure, bilingual in design

colorful & vivid illustrations

“Learn” Mode

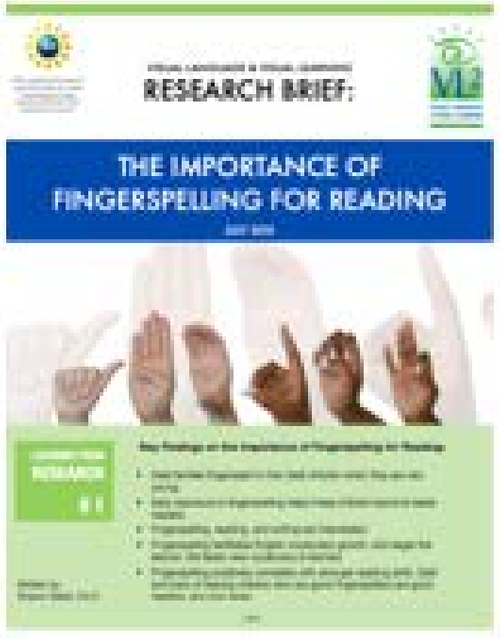


Vocabulary building, fingerspelled words
audio voice-over

“The more opportunities for language development, the more literacy and your relationship grows.”

Resources for Professionals & Families

VL2 Research Briefs



Editions available in ASL, Mandarin, and Spanish

Helpful resources to use in your state

- Deaf Mentors: Subject matter experts

The SKI-HI curriculum includes specific training on how to promote literacy via language and parent-child behaviors

http://www.skihi.org/DeafMentor.html

- Shared Reading Project: Book kits with ASL DVDs and training videos

http://www3.gallaudet.edu/clerc-center/our-resources/shared-reading-project.html

VL2StorybookApps.com

The Baobab

The Boy Who Cried Wolf

The Blue Lobster

Museum of Errors

The Solar System

The Little Airplane That Could

Baobabtreet (Norwegian Edition)

The Baobab (Japanese Edition)

More ASL/English Stories

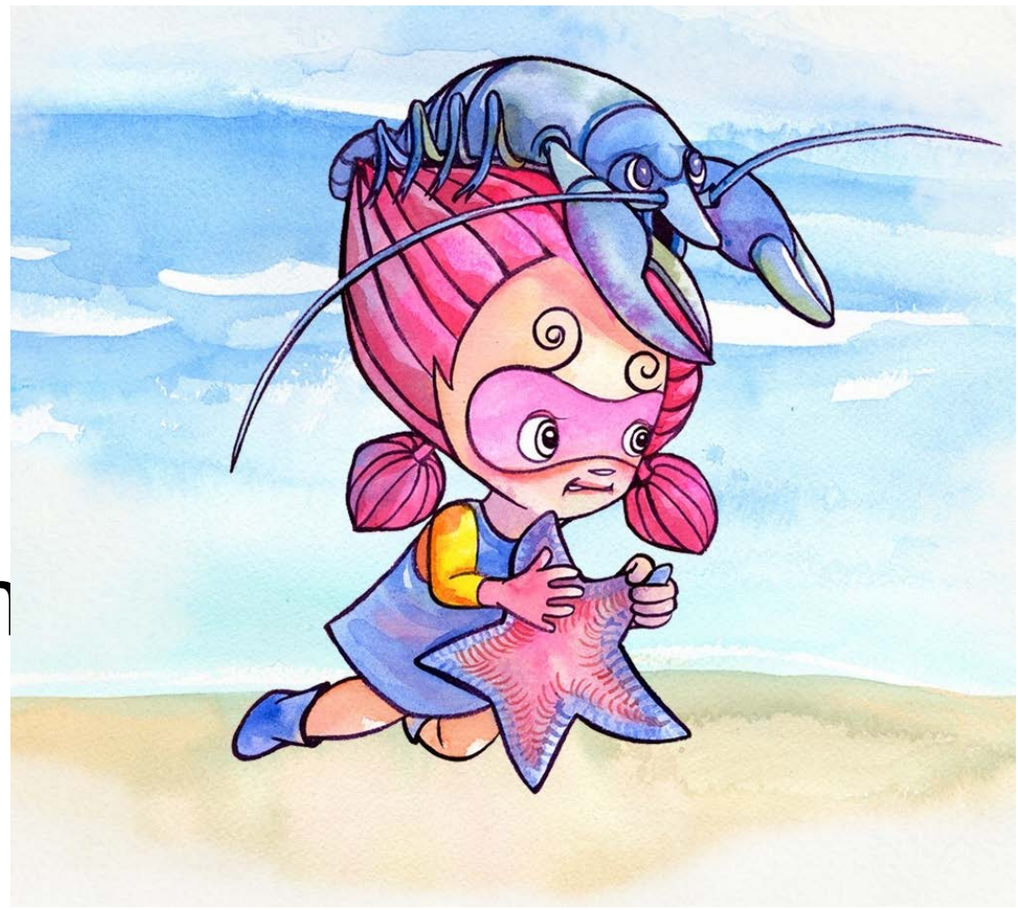
E-BOOKS (iTunes)

Pointy Three

Zoey Goes to the Dog Park

Signed Stories

Strollin' With Little Baby Owen



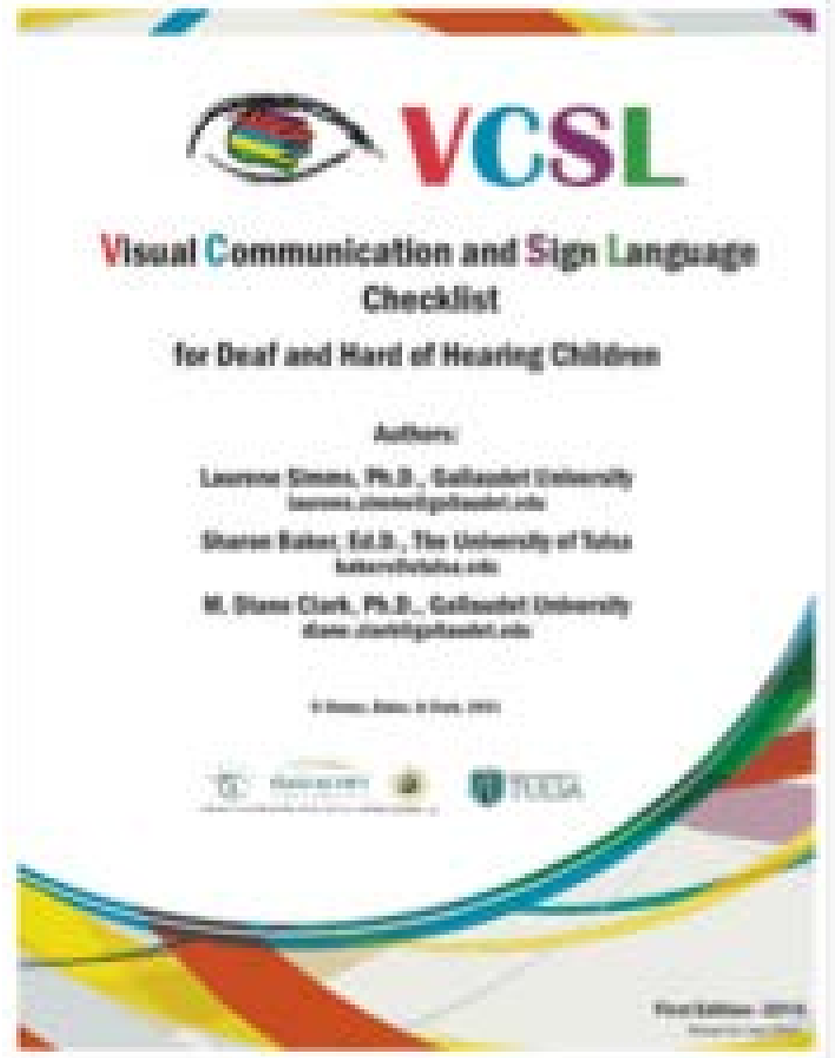
DVDS/VIDEOS

ASL Inside (Scholastic Books- Westwoods)

AMP- Accessible Materials Project (Georgia)

And more

ASSESSMENTS



ASL-RST: 3-13 years old

VCSL: 0-5 years old

Family Information Package

- Stories from families
- Advice from successful deaf individuals
- VL2 research
- Research briefs on language acquisition
- ASL Milestones
- Interviews with scientists
- Research-based information
- Links to other resources

vl2parentspackage.org

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PARENT INFORMATION PACKAGE

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Thank you!