



To Fingerspell or Not to Fingerspell?

Heidi M. MacGlaughlin
EHDI Conference 2016

Question to Ponder:

Is fingerspelling English?

No.

But it allows an ASL user to represent the **written form** of the spoken language in the environment.

Also it is not **borrowed words** from English.

Another question to ponder

Are the handshapes that resemble the letters of the written alphabet “letters” in ASL?

No.

They are signs, free morphemes in ASL. They have **form**, **meaning**, and a **referent**.

A misleading characterization...

“that fingerspelled words are conventionally regarded as a means of representing English words for which there are no equivalent signs”

What is Fingerspelling?

- Not the Rochester Method
- Fingerspelled items (cheremes) as whole units or “gestalts”
 - Movement envelope (Akamatsu, 1982)

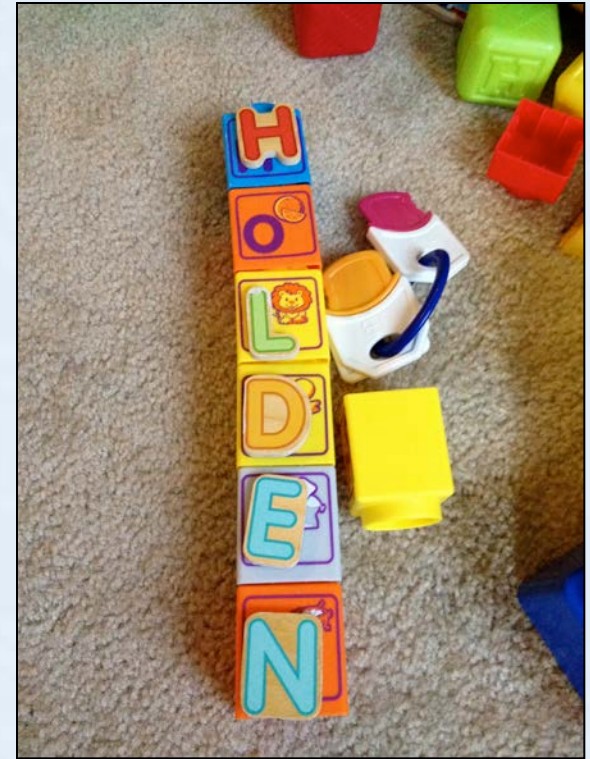
Lexicalization

- When separate cheremes begin to act like a single morpheme, like a sign
- Becomes a sign in the language
- No longer a fingerspelled word made up of individual cheremes

Development of Fingerspelling

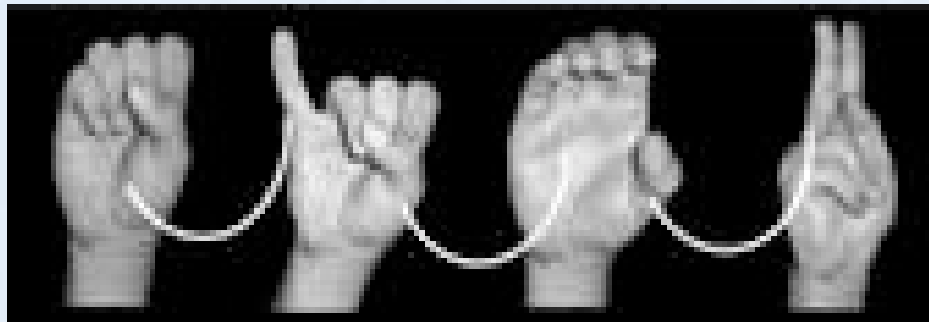


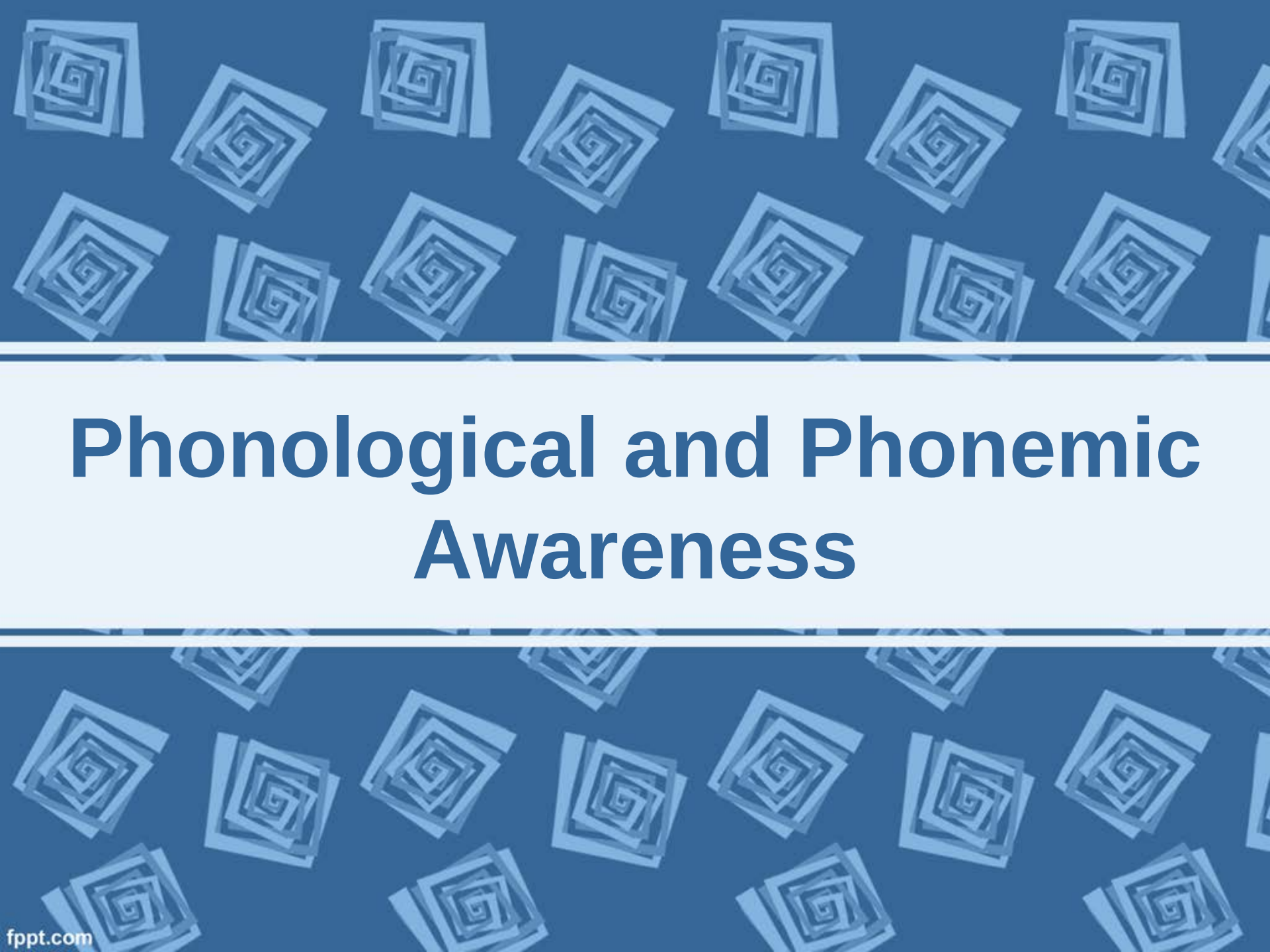
Development of Fingerspelling



Fingerspelling Acquisition

The timing of acquisition of
fingerspelling
varies among young deaf children





Phonological and Phonemic Awareness

Cracking the Code

How does this apply to
deaf children?

Could they “crack the code”
of the English language?

Phonological/Phonemic Awareness: Alternate Gateways

- Morphological decoding
 - Clark, Gilbert, & Anderson (2011)
- Orthographic knowledge, syntactic awareness, and metacognitive skills
 - Miller & Clark (2011)
 - Miller (2010) and Narr (2008)

Phonological/Phonemic Awareness: Not the Only Route

- Visual-orthographic strategy
 - Stone, Kartheiser, Hauser, Petitto, & Allen (2015)
 - McQuarrie & Parrila (2009)
- Higher-order metacognitive skills in decoding words (e.g., fingerspelling)
 - Izzo (2002)

Phonological/Phonemic Awareness: Not Necessary

- Mayberry et al (2011)
 - Meta-analysis
- Allen, Clark, del Giudice, Lieberman, Mayberry, et al (2009)
 - Critical responses to an article



A Bridge Between ASL and English?



sign language sign language sign language sign language sign language sign language sign language sign language sign language sign language

foundation foundation foundation

foundation foundation foundation foundation

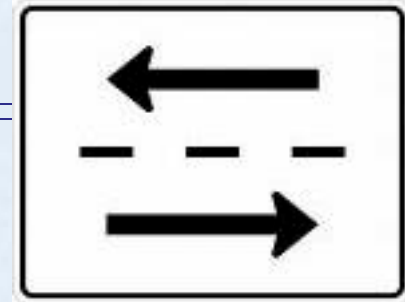
ssm 2016

What could be the **direct link** to the orthographical system of English print towards literacy development for young deaf learners?

Relationship Exists

- Fingerspelling and printed text for deaf children
 - Looking at fingerspelled words and writing down words
 - Recognizing fingerspelled words and writing them down in print (p. 185)

Fast Mapping



- Cognitive process
- Vocabulary size increases
- Two-way process for literacy development
 - Fingerspelling to print
 - Print to fingerspelling

YouTube - ASL ABC with 2-Year and 7-Month Old Child



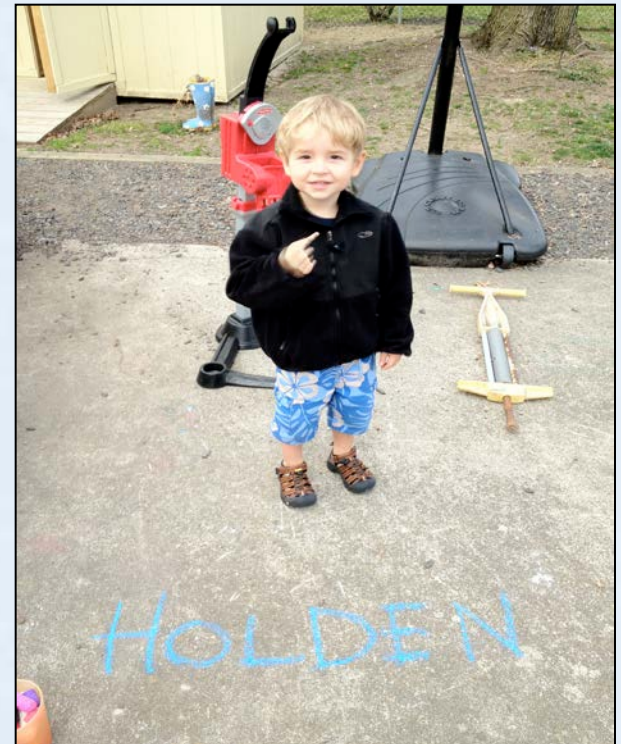
Implications for Parents and Educators

Important to Know

- Fingerspelling is both:
 - **early** sign language development
 - **later** English literacy development
- The latter fingerspelling development requires conscious teaching and is probably tied to reading ability

Important to Remember

- With younger children, fingerspelling is a developmental task
- Parents and educators should not delay using fingerspelling
 - fingerspelling should be **a part** of a child's early preschool language



Explicit Instruction

- Take advantage to teach explicitly
 - As a bridge
 - Mapping
- Foster language development, not phonological skills (phonemic awareness and phonological decoding skills)
 - Utilize visual strategies

Intertwined and Interrelated

- Fingerspelling skills are related to:
 - ASL competence
 - English reading ability
- Convergence for deaf and hard of hearing children
 - Literacy development

ASL Skills and English Reading Ability

- Early acquisition of ASL is strongly correlated with better reading skills
 - Freel et al (2011)
 - Hrastinski & Wilbur (2016)
 - Mouny, Pucci, & Harmon (2014)
 - And many more...

Take-Away Thoughts...

How does ASL help a child learn “advanced” words when one sign represents many different words (e.g., silly, absurd, ridiculous) or when it appears that there is not a unique sign for words like “obvious,” “tenuous,” etc?

How does one give a child specific labels for cars (e.g., Toyota, Ford, Jeep) or foods (e.g., beef, Velveeta, nachos) and explain differences in vocabulary (e.g., old/elderly, discrimination/discriminatory)?



Heidi MacGlaughlin
hmacglaughli@lamar.edu

References

- Akamatsu, C. (1982). The acquisition of fingerspelling in pre-school children. (Unpublished doctoral dissertation). University of Rochester, Rochester.
- Allen, T. E., Clark, M., del Giudice, A., Koo, D., Lieberman, A., Mayberry, R., & Miller, P. (2009). Phonology and reading: A response to Wang, Trezek, Luckner, and Paul. *American Annals of the Deaf*, 145, 338-345.
- Baker, S. (2010, July). Visual Language and Visual Learning Science of Learning Center. *The importance of fingerspelling for reading* (Research Brief No. 1). Washington, DC.
- Clark, D., Gilbert, G., Anderson, M. (2011). Morphographical knowledge and decoding skills of deaf readers. *Psychology*, 2(2), 109-116.
- Freel, B., Clark, M., Anderson, M., Gilbert, G., Musyoka, M., & Hauser, P. (2011). Deaf individuals' bilingual abilities: American Sign Language proficiency, reading skills, and family characteristics. *Psychology*, 2(2), 18-23.
- Goldin-Meadow, S., & Mayberry, R. (2001). How do profoundly deaf children learn to read? *Learning Disabilities Research & Practice*, 16, 222-229.
- Haptonstall-Nykaza, T., & Schick, B. (2007). The transition from fingerspelling to English print: Facilitating English decoding. *Journal of Deaf Studies and Deaf Education* 12(2), 172-183.

References

- Hile, A. (2009). Deaf children's acquisition of novel fingerspelled words. (Unpublished doctoral dissertation). University of Colorado, Boulder.
- Hirsh-Pasek, K. (1987). The metalinguistics of fingerspelling: An alternate way to increase reading vocabulary in congenitally deaf readers. *Reading Research Quarterly*, 22, 455-474.
- Hrastinski, I., & Wilbur, R. (2016). Academic achievement of deaf and hard of hearing students in an ASL/English bilingual program. *Journal of Deaf Studies and Deaf Education*, 21(2). doi: 10.1093/deafed/env072
- Izzo, A. (2002). Phonemic awareness and reading ability: An investigation with young readers who are deaf. *American Annals of the Deaf*, 147, 18-28.
- Kelly, A. B. (1995). Fingerspelling interaction: A set of deaf parents and their deaf daughter. In C. Lucas (Ed.), *Sociolinguistics in the deaf communities* (pp. 62-73). Washington, DC: Gallaudet University Press.
- Mayberry, R. I., & Waters, G. S. (1991). Children's memory for sign and fingerspelling in relation to production rate and sign language input. In P. Siple & S. Fischer (Eds.), *Theoretical issues in sign language research* (pp. 211-229). Chicago: University of Chicago Press.

References

- Mayberry, R., del Guidice, A., & Lieberman, A. (2011). Reading achievement in relation to phonological coding and awareness in deaf readers. A meta-analysis. *Journal of Deaf Studies and Deaf Education*, 16, 164-188.
- McQuarrie, L. & Parrila, R. (2009). Phonological representations in Deaf children: Rethinking the “functional equivalence” hypothesis. *Journal of Deaf Studies and Deaf Education*, 14(2), 137-154.
- Miller, P. (2010). Phonological, orthographic, and syntactic awareness and their relation to reading comprehension in prelingually deaf individuals: What can we learn from skilled readers? *Journal of Developmental and Physical Disabilities*, 22, 549-580.
- Miller, P., & Clark, D. (2011). Phonemic awareness is not necessary to become a skilled Deaf reader. *Journal of Developmental and Physical Disabilities*, 23(5), 459-476.
- Mounty, J., Pucci, C., & Harmon, K. (2014). How deaf American Sign Language/English bilingual children become proficient readers: An emic perspective. *Journal of Deaf Studies and Deaf Education*, 19(3), 333-346.

References

- Narr, R. F. (2008). Phonological awareness and decoding in deaf/hard-of-hearing students who use Visual Phonics. *Journal of Deaf Studies and Deaf Education*, 13, 405-416.
- Padden, C. (2006) Learning fingerspelling twice: Young signing children's acquisition of fingerspelling. In M. Marschark, B. Schick & P. Spencer (Eds.) *Advances in Sign Language Development by Deaf Children*. New York: Oxford University Press. Padden, C. (1998). The ASL Lexicon. *Sign Language and Linguistics*, 1, 39-64.
- Padden, C. (1991). The acquisition of fingerspelling by deaf children. In P. Siple & S. Fischer (Eds.), *Theoretical issues in sign language research, Vol. 2. Psychology* (pp. 191-210). Chicago, IL: University of Chicago Press.
- Padden, C., & Ramsey, C. (2000). American Sign Language and reading ability in deaf children. In C. Chamberlain, J. P. Morford, & R. I. Mayberry (Eds.), *Language acquisition by eye* (pp. 165-89). Mahwah, NJ: Earlbaum.
- Padden, C., & Ramsey, C. (1998). Reading ability in signing deaf children. *Topics in Language Disorder*, 18, 30-46.
- Stone, A., Kartheiser, G., Hauser, P., Petitto, L.-A., Allen, T. (2015). Fingerspelling as a novel gateway into reading fluency in deaf bilinguals. *PLoS ONE*, 10(10), 1-12