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Overview

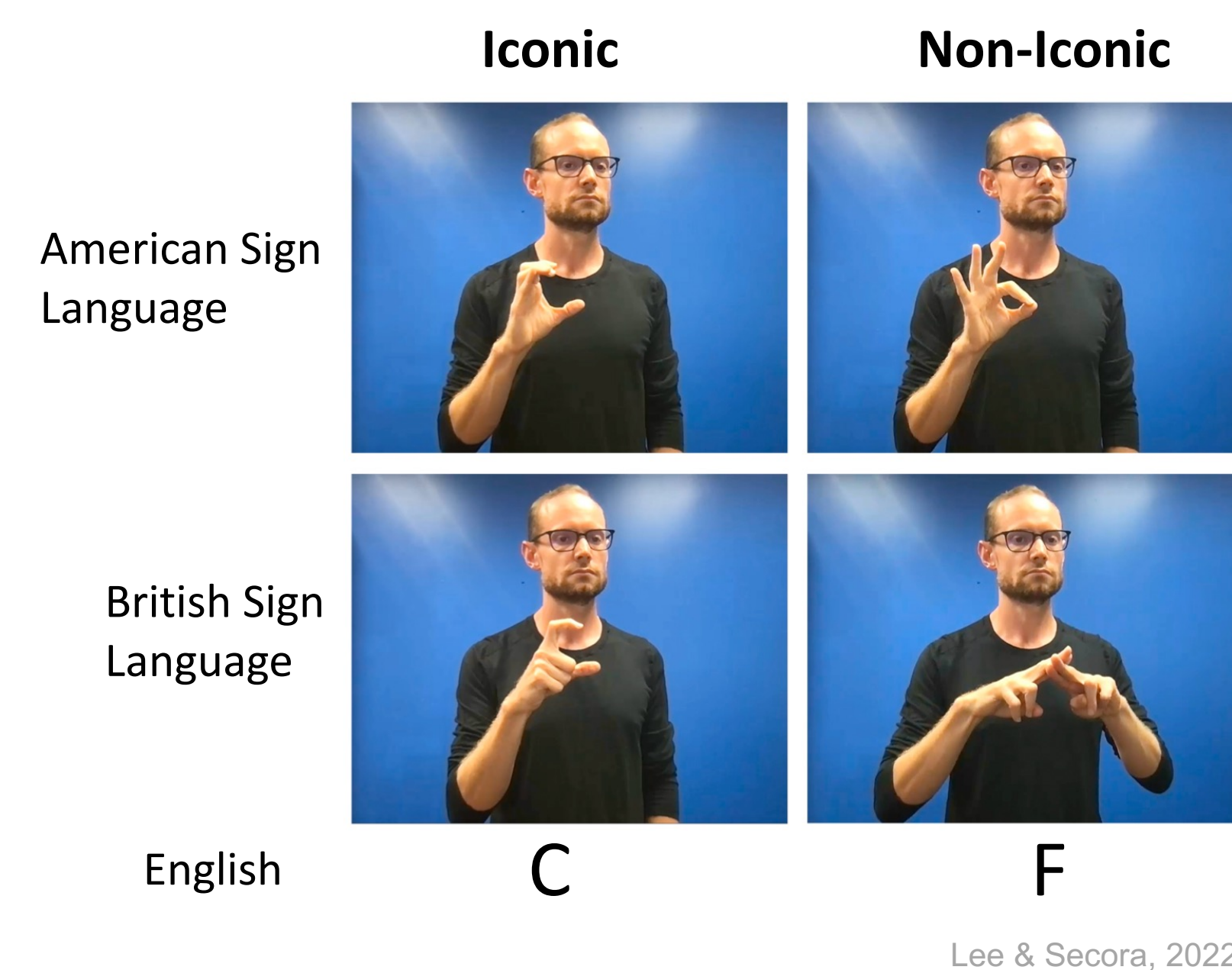
Sign languages, like spoken languages, are natural human languages with their own grammar and syntax. Fingerspelling is a natural part of many signed languages, including American Sign Language (ASL), in which designated handshapes and orientations represent letters of the surrounding spoken language's orthography. Research indicates that fingerspelling is highly predictive of literacy skills for deaf individuals (Stone et al., 2015; Sehyr & Emmorey, 2022). Fingerspelling appears to contribute to reading success by supporting phonological awareness, orthographic skills, and semantic development of young readers who sign.

Purpose:

Fingerspelling is a natural component of signed language that provides a critical connection to the orthography of the written form of spoken languages such as English. This poster will help to SLPs leverage the power of fingerspelling to connect literacy skills with signed language skills for deaf students.

Fingerspelling: A Series of Handshapes and Orientations that Represent Letters

- Many sign languages have a system of designated handshapes to represent the printed letters of the spoken language used in the surrounding community.
- Some handshapes resemble the shape of the printed letter ("iconic") and others do not ("non-iconic")



Fingerspelling Develops in Two Stages

- Stage 1: Deaf children begin to produce fingerspelling around 24 months of age. They do not yet understand that it represents letters. Fingerspelled words are conceptualized holistically, more like signs (Akamatsu 1982; Padden, 2005)
- Stage 2: Deaf children begin to learn the alphabetic principle and map their knowledge of fingerspelling handshapes to individual letters. Deaf children's fingerspelling increases significantly from 3 to 5 years of age (Allen, 2015; Padden, 2005).

Fingerspelling Supports Phonological Awareness

- Phonological awareness developed through fingerspelling can be tied to speech and/or sign.
- Speech-based phonological awareness
 - Sehyr et al. (2017) found that skilled deaf readers appear to recode fingerspelled words into a speech-based code in order to preserve them in short term memory. The mouthings that deaf signers produce match phonologically divided syllables rather than orthographically divided syllables (Emmorey & Petrich, 2012).
- Sign-based phonological awareness
 - In children, fingerspelling appears to support sign language phonological awareness by highlighting the internal structure of signs (Haptonstall-Nykasa & Schick, 2007; Lederberg et al., 2019).

Internal Structure of Signs
Handshape
Placement
Movement
Orientation
Nonmanual Markers

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Sample Phonological Awareness Activities for Handshape

Activity book available from: <https://www.sign2read.com/product-page/asl-handshapes-activity-book>

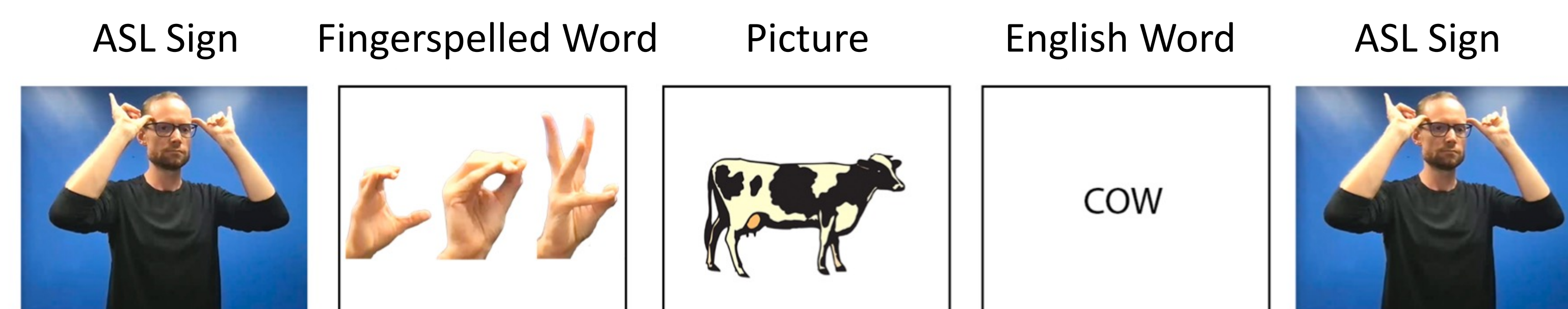
- Draw attention to signs that have the same handshape (OWL, BLOW, HOME, OFFICE)
- Let students figure out what does not belong based on handshape (MOUSE)

Fingerspelling Supports Orthographic Knowledge

- ASL fingerspelling skill is correlated with English spelling skill (Sehyr & Emmorey, 2022).
- The brain area that is specialized for orthographic knowledge (sometimes called the Visual Word Form Area) activates when a signer views fingerspelling and also printed letters (Emmorey et al., 2015; Waters et al., 2007).

Fingerspelling Supports Vocabulary Development

- Providing children with both the sign and fingerspelling of a new word facilitates learning more than just the sign alone (Haptonstall-Nykasa and Schick, 2007)
- Including fingerspelling in "chaining" (Humphries & MacDougall, 1999) helps build associations across languages and representations of the same concept.



How can SLPs Use Fingerspelling to Help Build Deaf Students' Literacy Skills?

Chain together signs, fingerspelling, printed words, spoken words, mouthings, and pictures

Teach kids to map fingerspelling handshapes to individual letters (and their associated sounds if they have access to spoken language)

BUT also model the whole word rather than one letter at a time so that they learn to perceive fingerspelling holistically and as part of fluent signing

Accept fingerspelled responses on sign vocabulary assessments

Model how to use fingerspelling as a cognitive tool for rehearsing new vocabulary or practicing spelling when writing, for example

Use fingerspelling to support traditional speech-based phonological awareness activities and play handshape games to build sign-based phonological awareness

Improve your own fingerspelling skills and provide resources for L2 caregivers to do the same

Expose learners to diverse fingerspelling models

Conclusions

- Fingerspelling is a versatile part of many signed languages that supports development of language, cognition, and literacy.
- Fingerspelling appears to contribute to reading success by supporting phonological awareness, orthographic skills, and semantic development of young readers who sign.

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