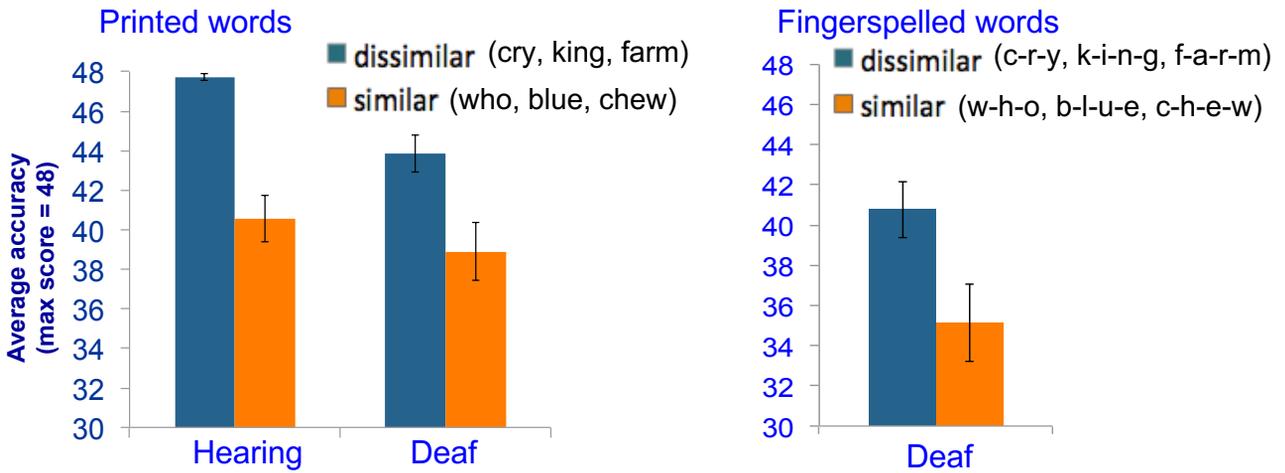


Signers use a speech-based code to store fingerspelled words in short-term memory

We use short-term memory when we want to remember a phone number or a short list of words. Hearing speakers convert (or re-code) written words into speech to help them remember. This means that words that sound similar (*who, blue, chew*) are more confusable in memory than words that are dissimilar (*king, bug, farm*). This effect is called **the phonological similarity effect**. The similarity effect is also found for ASL signs. Signs containing similar handshapes (*BOOK, BROOM, SOAP*) are more confusable in short-term memory than dissimilar signs (*EGG, KEY, SOCKS*). We examined how deaf ASL signers represent written words and fingerspelled words in short-term memory.

Fluent deaf ASL signers, who were skilled readers, used a speech-based code to remember lists of both **written and fingerspelled** words.



- Hearing and deaf readers showed a speech-based similarity effect when remembering written words. Deaf signers showed the same effect when remembering fingerspelled words.
- This finding shows that fingerspelling is linked to English phonology in skilled adult readers. We suggest that use of fingerspelling could help boost memory for English vocabulary.

Sevcikova Sehyr, Z., Petrich, J., & Emmorey, K. (2017). Fingerspelled and printed words are recoded into a speech-based code in short-term memory. *Journal of Deaf Studies and Deaf Education*, 22(1), 72-87.

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