Second language sign language vocabulary learning benefits from variation in the number of signers: The more the merrier

What this research was about and why it is important
Teaching practices focusing on the acquisition of a second language in adulthood are concerned with identifying variables that contribute to successful learning. This study targeted vocabulary learning in a sign language and investigated whether it is better to learn signs from different people or from only one person. Learning success was tested immediately after the training and two weeks after the training. Overall data suggest that learners benefit from seeing multiple signers when they learn signs. Pedagogically speaking, these results are informative for educational practices that promote second language sign learning. At a theoretical level, this study contributes to the knowledge of how signs are processed and encoded in memory. Additionally, reporting benefits for sign learning stemming from a large number of different signers shows that indexical variation is not restricted to acoustically based languages.

What the researchers did
- As participants, we recruited Catalan–Spanish speakers with no previous knowledge of any sign language.
- We asked participants to memorize 48 signs from Catalan Sign Language (Llengua de Signes Catalana, LSC).
- One, three, or six people presented the signs for learning.
- After the training, participants performed two recall tasks. In a picture naming task, they were required to perform the LSC sign corresponding to the picture displayed on a screen. In a translation task, they were presented with LSC signs and were asked to provide their Catalan translation.

What the researchers found
- Immediately after the training, participants translated better from LSC into Catalan those signs that had been presented by several people compared to those signs presented by a single person.
- Two weeks after the training, participants were better at naming pictures in LSC when signs had been presented by several people compared to those signs presented by a single person.

Things to consider
- These results generally support the idea that presenting signs with multiple people improves the learning of a second language sign. However, differences between experiments also suggest that other variables related to the learner (e.g., movement and/or visuospatial memory) or the tasks employed (vocabulary comprehension or production) might interact with the influence of the number of signers in sign learning.
- The observation that multiple signers benefited vocabulary learning is in line with previous studies revealing that multiple speakers benefit second language vocabulary learning.

Material, data, open access article: Data and materials are publicly available via the OSF (https://osf.io/upgma).


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