

Antunes, K. E. (1978). *The effect of the presence of manual signs on a paired-associates learning task*. Unpublished master's thesis, Purdue University, West Lafayette. Lyle L. Lloyd (Advisor): 104 pages of text, 61 references, 4 appendices, 2 tables, and 3 figures.

This study represents an attempt to examine the effect that the presence of manual signs can have on performance in a delayed paired-associates task. Unfamiliar auditory stimuli were paired with highly familiar visual stimuli. Half of the pairs were accompanied by manual signs from American Sign Language, half were not.

Subjects were thirty college students who had normal hearing and no experience in signing. The subjects heard a nonsense syllable and 5 seconds later saw on a video monitor a picture of a familiar object. Subjects were required to guess the name of the object after the syllable was heard but before the picture appeared. Appearance of the picture confirmed or corrected the response for use the next time that syllable was heard. Sixteen different pairs were presented in a different random order on each trial for a total of seven trials. For half of the pairs a signer presented on the left half of the split screen the sign for the object concurrent with the nonsense syllable and then concurrent with the picture of the object when it appeared on the right half of the screen. Four replications of the design were done with each subject, using a new group of syllable and object pairs each time. Pairs on each replication were divided into A and B groups. Half of the subjects received signs with the A group, half with the B group.

The presence of signs could have interfered with the paired-associates learning because they represented additional information and were potential distractors. However, it was found that significantly more correct responses were made to pairs accompanied by signs than to pairs unaccompanied by signs ($p < .0005$, one-tailed t-test, related measures design). Because of the design of the experiment it was not possible to determine whether subjects were responding to the nonsense syllables (i.e., had formed an association between the nonsense syllable and the object) or were ignoring the nonsense syllable and responding to the manual signs alone.

Subjects were asked to describe any methods they had employed to aid their performance. Despite the finding that most subjects exhibited more correct responses for the pairs accompanied by signs, only fourteen of the thirty subjects actually reported using the manual signs to help them associated nonsense syllables and common objects. Subjects may have been unaware of using signs in this manner or may have failed to report what they felt to be an obvious aid to learning.