

Loeding, B. L. (1989). *The effects of associative stories and symmetry on receptive and productive acquisition of manual signs by college students*. Unpublished doctoral dissertation, Purdue University, West Lafayette. Lyle L. Lloyd (Advisor): 145 pages of text, 77 references, 7 appendices, 15 tables, and 1 figure.

This study investigated the effects of sign type and instructional method on the immediate and delayed receptive and productive acquisition of individual manual signs by groups of college students. There were two methods (associative story and physical description) and two sign types (asymmetrical and symmetrical or one-handed signs). A mixed factors design was used with 2 (sign type) x 2 (method) x 2 (order) repeated measures ANOVAs of sign production and reception. In addition, the phonological sign parameters (movement, handshape, orientation and location) were dichotomously scored for all subjects and the means for all parameters were analyzed for significant differences with a series of paired comparisons. Students received instruction in six small groups of nine to thirteen subjects per group.

Each subject learned sixteen signs taught with each method. Within each set of sixteen signs, one-fourth were two-handed symmetrical signs, one-fourth were one-handed signs and half were two-handed asymmetrical signs. Four groups were randomly assigned to different orders of presentation, with two replication groups. The first measure of acquisition was a videotaped production test. Then, subjects watched a videotaped presentation of the stimulus items in random order and wrote down the meanings of each of the signs. After one week, subjects returned and the same productive and receptive measures of acquisition were repeated. The receptive test used dichotomous scoring, while the productive test measured a number of sign parameters (type and number of movement, orientation, handshape and location). The productive score for each sign ranged from zero to eight. Results of this study indicated that there was no significant difference for any of the four measures due to type of instruction received. However, the initial set of one-handed and symmetrical signs were found to be significantly easier to produce than asymmetrical signs regardless of type of instruction. This effect was not significant in the last half of instruction.

With respect to the sign parameters which were scored, the dominant handshape was significantly harder for subjects to produce than all other parameters, with type and number of movements being the two next most difficult. Orientation of the base hand was significantly easier than all other parameters, while initial location was the next least difficult.