

# Research: The LINC'S Vocabulary Strategy

## Overview

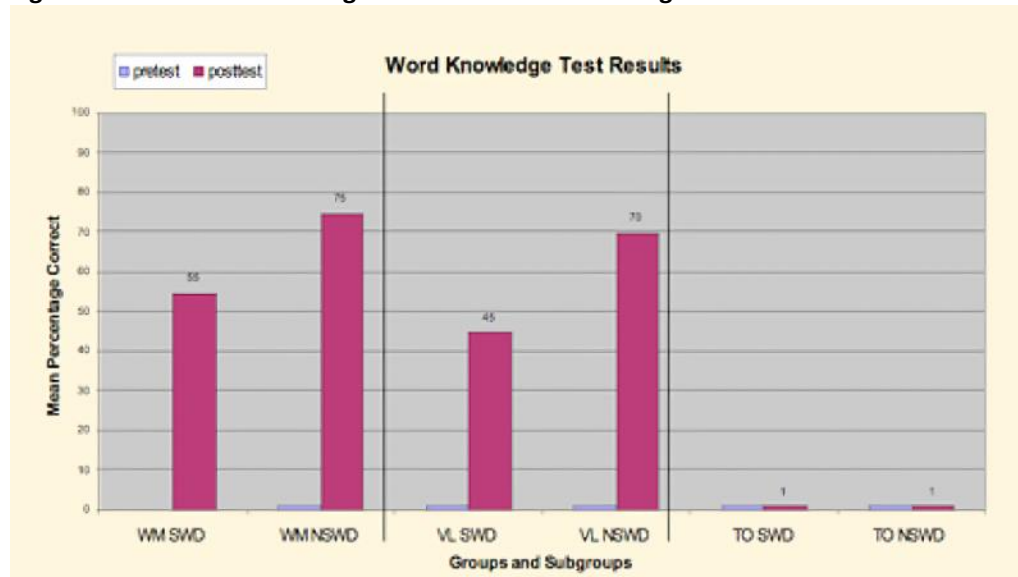
The LINC'S Vocabulary Strategy is a strategy students use to learn the meaning of a new word. The effects of teaching the LINC'S Vocabulary Strategy were compared to the effects of teaching the Word Mapping Strategy in this study. The Word Mapping Strategy is a strategy students use to predict the meaning of new words. The study included a total of 230 ninth graders in nine intact general education English classes. Students with disabilities (SWDs) and without disabilities (NSWDs) were enrolled in all of the classes. Three classes participated in each of three groups: the group receiving instruction in the LINC'S Vocabulary (VL) Strategy (n = 6 SWDs, 73 NSWDs), the group receiving instruction in the Word Mapping (WM) Strategy (n= 10 SWDs, 69 NSWDs), and a comparison test-only [TO] group (n = 8 SWDS, 64 NSWDs). Classes were randomly selected into the two experimental groups. The third group of classes served as a normative comparison. A pretest-posttest control-group design was combined with a pretest-posttest comparison-group design.

## Results

Figure 1 displays the mean percentage of 20 words that students in both experimental groups (i.e., the VL and WM groups) learned during the strategy instruction as determined by a written test that required students to write the meaning of the words. The bars in the center of the figure show the mean percentage scores earned by the VL group before and after instruction in the strategy. With regard to changes from pretest to posttest for the VL group (the group that learned the LINC'S Strategy), the three-way interaction of time  $\times$  subgroup  $\times$  group was found to be significant, Wilks'  $\Lambda = .964$ ,  $F(2,224) = 4.138$ ,  $p = .017$ , partial  $\eta^2 = .036$  (a small effect size). When the file was split on subgroup, the time  $\times$  group interaction was significant for the SWDs,  $F(2,21) = 12.90$ ,  $p < .001$ , partial  $\eta^2 = .563$  (a large effect size), and for the NSWDs,  $F(2,203) = 367.388$ ,  $p < .001$ , partial  $\eta^2 = .780$  (also a large effect size). The paired-sample t-tests revealed that significant differences were found between the pretest and posttest scores for the SWVDs in the VL group,  $t(5) = -5.391$ ,  $p = .003$ ,  $d = 1.074$  (a large effect size), and for the NSWDs in the VL group,  $t(72) = -26.879$ ,  $p < .001$ ,  $d = .089$  (a medium effect size). No differences were found for the TO subgroups.

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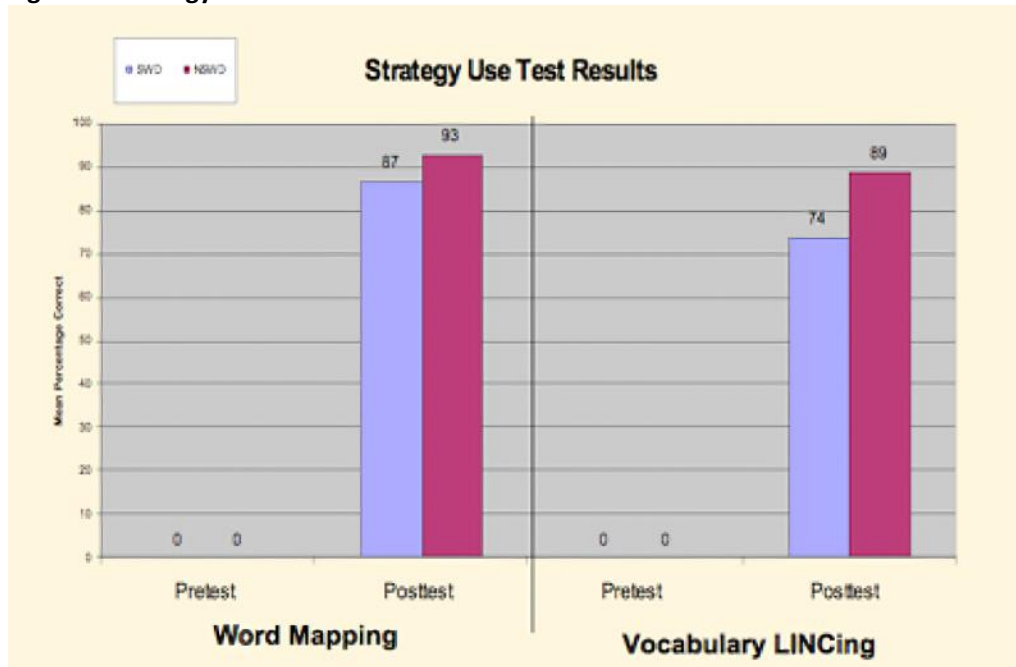
Figure 1: The Mean Percentage of Correct Word Meanings



No differences were found between the posttest scores of the WM and VL groups on this measure. However, large significant differences were found between the posttest scores of the VL subgroups and the TO subgroups [SWDs:  $F(1,20) = 12.589$ ,  $p < .01$ , partial  $\eta^2 = .386$  (a moderate effect size); NSWDs:  $F(1,202) = 543.479$ ,  $p < .001$ , partial  $\eta^2 = .730$  (a large effect size)].

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Figure 2: Strategy Use Test Results



## Conclusions

Students in ninth-grade general education classes were able to learn the LINCS Vocabulary Strategy and the meaning of words taught during strategy instruction at a high level of performance. The effect sizes in each case were large. There were no differences in performance between the students with and without disabilities.

## Reference for this study\*

Harris, M. L., Schumaker, J. B., & Deshler, D. D. (in preparation). The effects of strategic morphological analysis instruction on the vocabulary performance of secondary students with and without disabilities. Available through Edge Enterprises, Inc. or call Edge for updated publication information.

\*This research study won the Researcher of the Year Award from the Council for Learning Disabilities in 2008.