

# Research: The Paired Associates Strategy

## Overview

The Paired Associates Strategy is used by students to study information in subject-area courses to prepare for tests. This study investigated the effects of instruction in the Paired Associates Strategy on high-school students' performance with regard to learning pairs or trios of facts. (For example, the information that Barak Obama became president of the United States in January of 2009 comprises a trio of facts.) This strategy initially involves the creation of one of four types of mnemonic devices, including making mental images, relating the information to prior knowledge, using key words, and making a code. Then the student creates a study card and tests him/herself over the information. Twelve students with LD participated in the multiple-baseline across-students designs, with three students participating in each iteration of the design. The regularly assigned resource room teacher provided the instruction.

Two types of tests were given for the repeated measures. In the first type of test (called "Controlled Tests"), students were given a list of 20 pairs or trios of facts and asked to learn them. Each type of mnemonic device the students learned could be used to remember five of the pairs or trios in the list. The students were given 45 minutes to study the information. On the next day, they were given a fill-in-the-blank test over the information.

In the second type of test (called "Content Tests"), the students were given a written passage, similar to a passage that they would encounter in a high school textbook and in which 20 pairs or trios of factual items had been embedded. The students were asked to study the information in the passage, make study cards, and take a test over the information on the next day.

## Results

Before instruction, the 12 students earned an average score of 18% correct on the Controlled Tests and 22% correct on the Content Tests. The students learned the strategy quickly, meeting the mastery criterion on creating each type of mnemonic device within one or two trials. After instruction, the students' mean score on the Controlled Tests was 85% and on the Content Tests was 76%. With the exception of one score, all the students' scores during baseline represented failing performances. After instruction, 59 of the 66 test scores represented passing performances. In the maintenance condition, ten of the 12 students maintained their posttest performance levels on follow-up tests. Two students received additional instruction after their maintenance performance levels did not match posttest levels. These two students met their posttest performance levels in the maintenance condition.

## Conclusions

This study showed that high school students with LD could learn a complex memory strategy for studying for tests. Their grades improved on tests that were similar to tests that they might encounter in required general education courses.

## References

Bulgren, J. A., Hock, M. F., Schumaker, J. B., Deshler, D. D. (1995). The effects of instruction in a paired associates strategy on the information mastery performance of students with learning disabilities. *Learning Disabilities Research and Practice*, 10(1), 22-37.