

Using Paired Associates with FORCE

Combining strategies boosts study skills

The Paired Associates Strategy has been greeted with much enthusiasm by the teachers I have trained. When asked how this strategy will meet the needs of their instructional programs, many teachers express hope that student use of this strategy will decrease the need to reinforce basic information over and over. When the students become competent in learning basic material, the teachers feel that they will be able to spend more time on higher-level learning such as integration, critical thinking, and application. After students have been trained, the teachers note that students who are taught the Paired Associates Strategy are better prepared to master information.

Elaine Fine
SIM Trainer
from New Jersey
and an associate
professor in the
graduate program
at Montclair State
College

The steps, which involve identifying pairs or groups of items that are important to learn, creating study cards with questions for the items, selecting memory devices, and rehearsing in a systematic manner, foster active involvement with the material. Students who use the Paired Associates Strategy are better prepared to participate in class and to take tests as a result of learning how to cope with large amounts of information. Both students and teachers are enthused about the Paired Associates Strategy. Students with learning problems, however, may still have generally inefficient and ineffective study habits and skills. Teaching an additional strategy, FORCE, will help them use the Paired Associates Strategy as part of a larger study system.

Deficiencies in study habits have been noted as one of the problem areas in student performance. As a part of the evaluation process, I include a strategies interview to determine how students study. Following the procedures described by Wiener (1986), I ask students to bring tests they have recently taken and I pose questions about how they studied for those specific tests, starting with the general question, "How did you study for this test?" and then asking specific questions about study habits. From these interviews, I have noted that many children with learning difficulties employ ineffective and inefficient study habits. They may be unsure of what will be on the test and how they will be tested. They report that they study by just rereading the chapters entirely, or at least trying to, without sorting out material. They often go over the information they know again and again and fail to study the parts they do not know. They tend to review the information as a whole rather than chunking it into smaller units. They do not anticipate the questions they will be asked. These poor study habits have been noted in young children as well as in young adults with learning disabilities with whom I have worked in college-level support programs.

Wehrung-Schaffer (1990) presented a powerful test preparation strategy called FORCE that addresses these poor study habits. I have taught this strategy to many students over the years with

(continued on page 2)

**Using
the two
strategies
together
provided a
powerful
package
of study
tools.**

Two strategies combine to boost students' skills

(Continued from page 1)

success; this was before the development of the Paired Associates Strategy. There were, however, some parts of the FORCE Strategy that were difficult for students to master, and the Paired Associates Strategy provides specific ways to address these difficulties. The steps of the FORCE Strategy are presented in the box at right.

The F (Find Out) step and the O (Organize) step are completed before studying and are intended to help the student become more attentive to information given in class and more responsible for organizing themselves. These steps should promote independence; the special education teacher, after teaching these first two steps, should be able to gradually turn responsibility for knowing what has to be done and how over to the children. Previous patterns where the special education teacher or parent runs around finding out what has to be studied or obtaining missing worksheets or materials left in lockers should be faded out; although these behaviors are helpful to the children because the teacher can then assist the child in preparing for a test, they promote dependency. Direct teaching of the Find Out and Organize steps with modeling and rehearsal helps students develop self-reliance.

The R (Review), C (Concentrate), and E (Early Exam) steps are completed at home or during study time in school. Students who have good study habits do a general review before concentrating on unknown

FORCE: A strategy for studying for a test*

Strategy Step	Intended Associations
F ind Out	Listen for the announcement of a test. If you did not receive all the information, ask questions, such as what will be covered and what type of questions will be on the test.
O rganize	Collect all necessary materials needed for studying. Do a general review (skim notes, old tests, books).
R eview	Use a study guide to do an overall review. Decide which information you know well. Concentrate on the information you do not know. Concentrate on the information you think will be stressed on the test.
C oncentrate	Make a study sheet or cue cards by putting this information in question-and-answer form. Practice by pretesting. Make up practice questions.
E arly Exam	Take turns asking questions with a partner or parent.

*L. Wehrung-Schaffer (1990). May the FORCE be with you: A test preparation strategy. *Academic Therapy*, 25,291-300

information or information they anticipate will be on the test. They think of questions that the particular teacher may ask based on work stressed in class and the pattern of questions presented in previous tests. They review unknown information systematically.

I used to find that, when learning the FORCE strategy, the children were still uncertain about how to do the general review in the R step. The students faced the most difficulty in the C step, which calls for the students to put the information they are unsure of on cue cards in question-and-answer form. This step did not allow for the students to group

information in meaningful ways and did not provide for the use of memory devices to aid the study process. The Paired Associates Strategy provided the needed specific ways to do the R, C, and E steps, and using the two strategies together provided a powerful package of study tools.

To present the two strategies, I begin by teaching the Paired Associates Strategy following the eight-stage instructional sequence that is needed to ensure mastery and generalization. I then teach the FORCE Strategy. I connect the two strategies by teaching the students to use relevant steps from the Paired Associates

(Continued on page 8)

Meat & potato details on a paragraph PLATTER

Barbara Davis, a SIM Trainer from Summersville, West Virginia, has constructed a mnemonic device to use when teaching the Paragraph Writing Strategy to help her students memorize and recall the requirements for detail sentences.

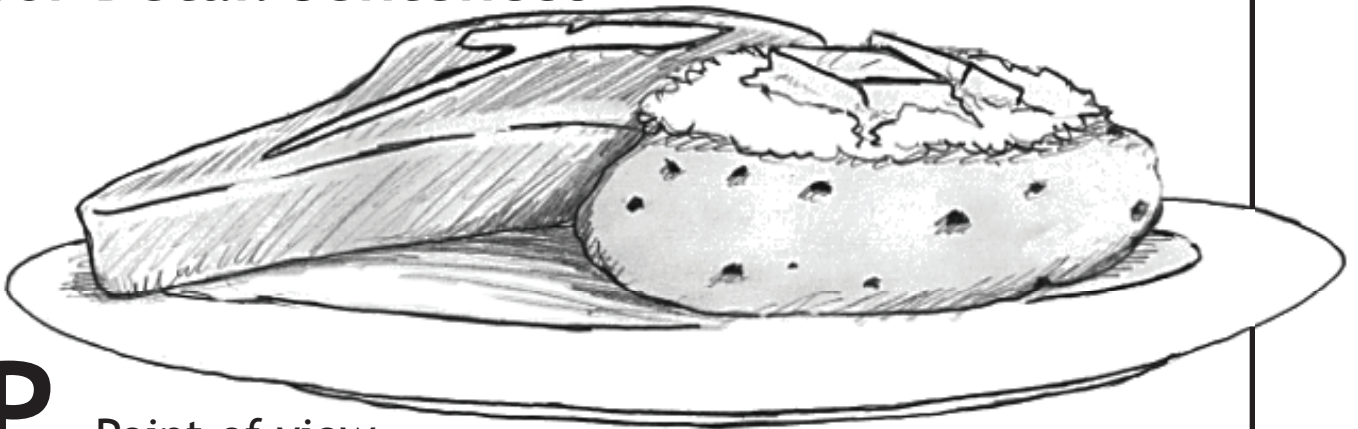
The device continues the food analogy described in the Paragraph Writing Strategy instructor’s manual. The description likens the topic sentence to an appetizer that whets your

appetite for the rest of the paragraph. The details are considered the main course—the meat and potatoes of the paragraph.

Barbara’s mnemonic device, illustrated below, uses the visual image of a platter holding vast amounts of meat and potatoes.

Barbara also uses visual organizers and has taught her students to take notes using them. The figure on page 4 is a sample.

Requirements for Detail Sentences



P = Point of view

L = Logical sequence

a

T

= Transitions must begin each new detail

T

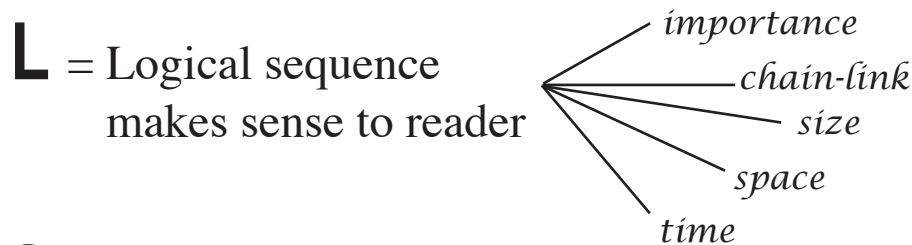
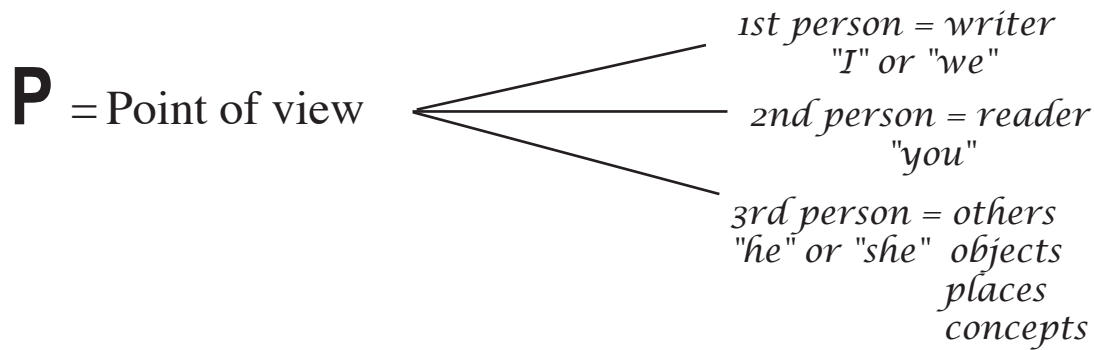
= Tense

e

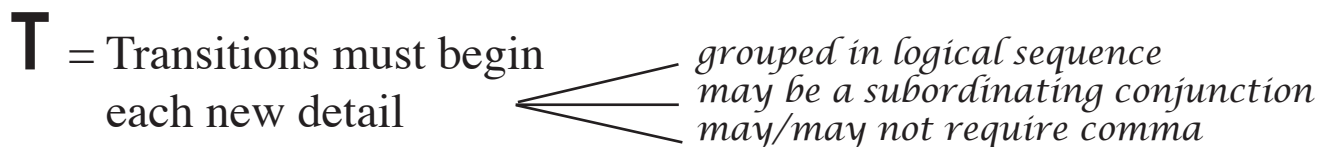
R

= Related closely to main ideas/
details named in topic sentence

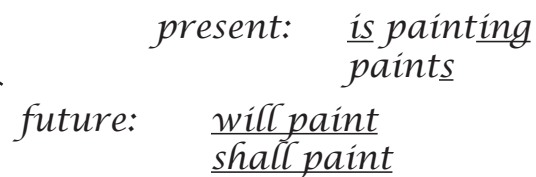
The Detail Sentence Requirements



a



e



R = Related

Preskills training helps students prepare for strategies

By Barbara Glaeser

Learning strategies are powerful tools to help students with learning disabilities improve skills such as comprehension and decoding. Sometimes, however, students need additional instruction before they can begin formal strategy training. For example, the Paraphrasing Strategy involves putting main ideas and details in one's own words. Some students may need extensive practice with translating presented words into their own words before they understand the concept of paraphrasing. Even though the skills of finding main ideas and details are described and modeled for students, some students need to practice identifying main ideas and details before going on to the passages recommended in the strategy manual.

One way to deal with these problems is to instruct students in preskills before beginning the formal strategy instruction. The Paraphrasing Preskills Packet provides all of the materials necessary for teachers to prepare students to enter instruction in the Paraphrasing Strategy with success.

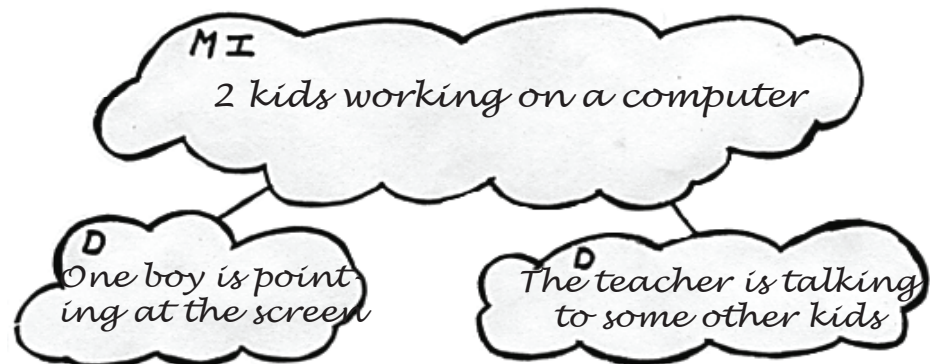
The Paraphrasing Preskills Packet begins with instruction in identifying and naming what is important in a picture, then proceeds to instruction in categorizing these important parts as main ideas or details. Students are taught that the main idea is the answer to the question, "What is this picture about?" The details are the answer to the question, "How do I know?" Once these questions are answered, the main idea (MI) and details (D) of the picture are written down in a concept web (see illustration on this page). The main idea is written in a large circle, then the details are written in subordinate circles. Students practice with 10 pictures, until they can easily identify the main ideas and details.

Next, students practice the same strategy with sentences. They are taught to ask themselves, "What is this sentence about?" and answer the question in the MI circle. Then, they ask, "What does the sentence tell me about the MI?" For ex-



Read a picture

ASK yourself the main idea and details



PUT it in your own words

(Using key words, tell it in your own sentences.)

ample, in the sentence "Thomas Edison invented the light bulb, the phonograph, and the movie camera," the sentence is about Thomas Edison's inventions (main idea) and the sentence names three things that he invented: the light bulb, phonograph, and movie camera (details).

Next, students practice paraphrasing in two ways. First, they learn to use synonyms for words in a sentence, thus "putting it in their own words." Second, they learn to change the order of words in the sentence while retaining the meaning, which again results in a paraphrase of the sentence.

Finally, students apply all of these strategies to short paragraphs. They are asked to read the paragraph, circle the important words, and put key words in the correct main idea or detail clouds (see illustration on this page). Once students can identify the main ideas and details in paragraphs

(Continued on page 6)

Preskills training helps students prepare for strategies

(Continued from page 5)

and can rephrase them, they are ready to begin the Paraphrasing Strategy.

Preskills Packets for Paraphrasing, Visual Imagery, Self-Questioning, Sentence Writing, Error Monitoring, and Word Identification can be ordered by writing to the author, Barbara Glaeser, PO Box 442554, Lawrence, KS 66044, or by calling (913) 749-4610 or fax at (913) 749-7444.

Barbara Glaeser is a doctoral candidate in special education at the University of Kansas. Before coming to Kansas, she was a special education teacher in California for 13 years.

In 1989, while working at a middle school, Barbara heard about a new method of instruction for special education students called the Strategies Intervention Model (since renamed the Strategic Instruction Model). She was one of 60 teachers and

administrators chosen to participate in training.

"Once I learned the model, I was hooked!" she said. "Finally, I had a tool for teaching my students how to learn content material rather than just helping them get through the next test in their general education classrooms."

She discovered, however, that many of her students lacked some of the skills necessary to begin SIM instruction. With help from Program Specialist Kit Dameron and Speech and Language teacher Linda Brandt, Barbara put together a packet of materials to "fill in the gaps" of skill knowledge for these students. At conferences for SIM Trainers, she heard other teachers say that their students also lacked these skills, so she offered her materials. Soon, the materials were in great demand.

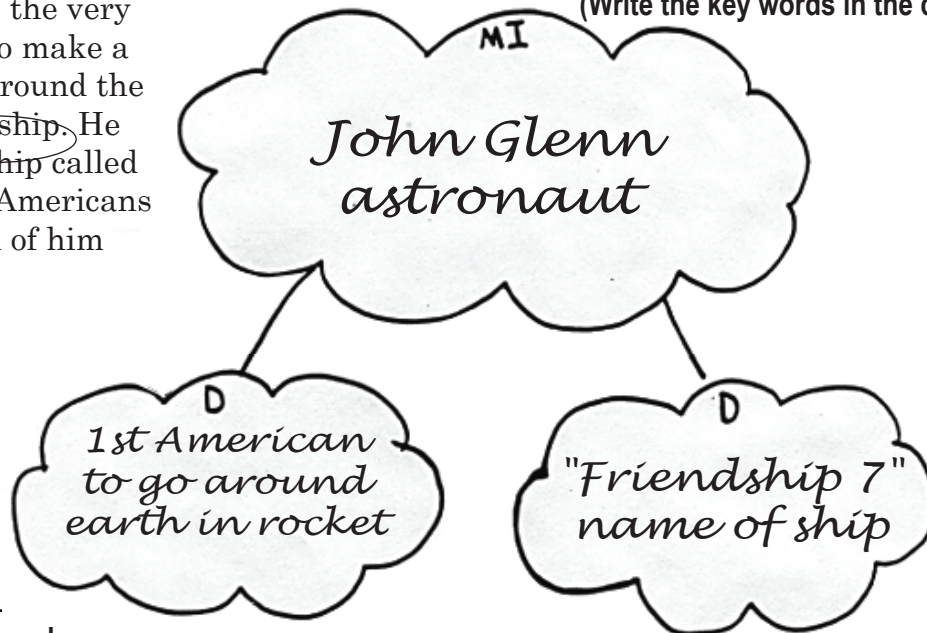
As a doctoral student, Barbara is working to validate these preskill strategies materials so that they can be officially published sometime in the future.

Paraphrasing with Paragraphs

1. READ a paragraph

John Glenn was an astronaut. He was the very first American to make a complete orbit around the earth in a spaceship. He piloted a spaceship called "Friendship 7." Americans were very proud of him after his flight.

2. ASK yourself the main idea and details. (Write the key words in the clouds.)



3. PUT it in your own words.

(Using key words, tell it in your own sentences.)

MI—John Glenn was an astronaut.

D—He was the first American to go around the earth in a rocket.

D—His spaceship was named "Friendship 7."

Together, teachers face challenges in classroom

Collaboration pays off for students and teachers. That's what Mary Higgs, special education specialist with Conroe Independent School District, Texas, found when she teamed with art teacher Norman Sugg to present the Self-Questioning Strategy to a class of ninth-graders.

Mary needed to practice presenting strategies to students before attending the Strategic Instruction Model Trainers' Workshop, and Norman was very concerned about the reading abilities of his students. Together, they met both challenges head on.

On the first day of second semester last year, Mary joined Norman's art class. She was apprehensive at first, afraid that the students, many of whom had been in Norman's classes for three years, would respond to her as they would to a substitute or that students wouldn't react well to the changes she planned. On that first day, Mary was introduced, and she explained why she was there. On the second day, Mary showed the students how to set up individual folders and then distributed a passage from their art textbook over which they would be tested the next day. Mary explained that she wanted to use this pretest to see how much information they retained overnight using their current reading methods.

The class included students from several cultures and varied academic levels. The class contained very intelligent students, average students with good work habits, at-risk students, and students receiving special education services.

"When I first went into the class, the students were 'set in their ways,'" Mary said, "so my challenge was to get them to follow through on what they learned." Many of the students also were accustomed to being confrontational and argumentative with teachers.

Mary faced a tough audience

"When I first went into the class, the students were 'set in their ways,' so my challenge was to get them to follow through on what they learned."

but found that she already knew some of the students, having provided special education services to them when they were in the seventh grade. "I began calling them by name and soliciting their help as I passed out sheets and folders. I learned the names of others as quickly as I possibly could and greeted them, by name, as they entered each morning," she said.

Mary and Norman worked together to implement a number of changes in the class. They placed the student folders on tables before class and picked up folders from any empty seat as soon as the tardy bell rang. They began instruction within the first five minutes of class. They established a participation grade that could be retained if students didn't break the rules. "It was up to the student to see how many of the 100 points they could keep from losing," Mary said. "We stressed this was an easy way to make a good grade."

Points were deducted every time students talked without permission, did not listen, did not bring art supplies to class, arrived late for class, or left their seats without permission.

"We were consistent with

those expectations, and they complied; not to say they did not complain, but they did what we requested," she said.

In all, 17 students completed the sequence of strategy instruction with Mary. She analyzed the pretest and posttest results for these students and found an average class gain

in reading comprehension of 40 percent, the same results obtained from previous research.

"Mr. Sugg and I were delighted," she said. "The students were pleased with their progress, also."

Mary and Norman planned a celebration for all students who participated in the training and invited the principal and other school officials to join in thanking the students for their participation and hard work.

This year, Norman planned to continue the instruction with his seventh- and eighth-grade students. Mary now is interning with her SIM Mentor, Dan Boudah, as she works toward certification as a SIM Trainer.

Strategram

Vol. 9: Issue number 3. Published six times per year by The University of Kansas Center for Research on Learning, Dole Human Development Center-Room 3061, Lawrence, Kansas, 66045-2342. Subscription rate: \$13 per year. No part of this publication may be reproduced without written permission from the publisher, unless otherwise stated.

©1997 by The University of Kansas, Lawrence, Kansas, 66045. All rights reserved.

Editor

Julie Tollefson

Consulting Editors

Keith Lenz

Don Deshler

Jean Schumaker

Pair of strategies provides long-term study skills for students

(Continued from page 2)

Strategy during FORCE.

The children use the Paired Associates Strategy to select important information, make the study cards and questions, form the memory devices, and study on a regular basis using the self-test procedure.

When studying for a test, the students integrate the two strategies during the R, C, and E steps as follows.

Review. Students develop a pack of study cards using the P, A, I, and R Steps of the Paired Associates Strategy.

1. Pick a clue, identifying a pair of important items to learn.
2. Arrange the items on a study card.
3. Identify the questions that will help them study.
4. Recast the information using memory devices.

Then, using the self-test

procedure, the S Step, from the Paired Associates Strategy, students separate the cards into two piles, one containing the cards that represent material they know well and the other containing the cards that represent material they have not mastered.

Concentrate. To do this step, students use the self-test procedure over and over with the cards in the pile of unknown material. They also do the other part of this step, thinking of what material the teacher will likely include on the test.

Early Exam. To do this step, students use the Paired Associates cards to practice the questions that have been written for each paired associate. Then, they use the cards to make up different kinds of questions, such as multiple choice, short essay, or true-false. This is an excellent

step to do in cooperative learning groups.

Students who learn both the Paired Associates Strategy and the FORCE Strategy are prepared with both general study habits and specific skills that can be used throughout school. These students can use Paired Associates with FORCE.

References

- Bulgren, J.A. & Schumaker, J.B. (1996). *The Paired Associates Strategy*. Lawrence, Kansas: The University of Kansas Center for Research on Learning.
- Wehrung-Schaffer, L. (1990). May the FORCE be with you: A test preparation strategy. *Academic Therapy*, *25*, 291-300.
- Wiener, J. (1986). Alternatives in the assessment of the learning disabled adolescent: A learning strategies approach. *Learning Disabilities Focus*, *1*(2), 97-107.

The University of Kansas
Center for Research on Learning
Rm. 3061 Robert Dole Bldg.
Lawrence, Kansas 66045-2342
1-913-864-4780

Address change requested

Non Profit Org.
U.S. Postage
PAID
Lawrence, Kansas
Permit No. 65