Stratenotes

April 2002
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*an international newsletter for SIM Trainers*

## Calendar

May 28-June 1, 2002
Pedagogies for Academic Diversity in Secondary Schools Workshop for Preservice Educators
Lawrence, Kansas

June 10-14, 2002
Potential Trainer Workshop for Learning Strategies and Potential Trainer Workshop for Content Enhancement
Orlando, Florida
Contact Margie Ringler:
(386) 254-3031
projcentral@mail.ucf.edu

June 10-14, 2002
Potential Trainer Workshop for Learning Strategies
Minneapolis, Minnesota
Contact Shari Schindele
(763) 420-1015
sschinde@isd.net

June 12-14, 2002
SIM Writing Strategies Workshop
Lawrence, Kansas

June 17-21, 2002
SIM Content Enhancement Workshop
Lawrence, Kansas

June 17-21, 2002
Promoting Content Literacy through the Strategic Instruction Model
Sacramento, California

June 19-22, 2002
SIM Workshop Level I
Lawrence, Kansas

June 19-22, 2002
SIM Workshop Level II
Lawrence, Kansas

June 24-28, 2002
Potential Trainer Workshop for Content Enhancement
Baton Rouge, Louisiana
Contact Anne Clouatre
(225) 342-3640
aclouatre@doe.state.la.us

*(More calendar on page 2)*

# Strategic research

## *A summary of Learning Strategies and related research*

*Don Deshler, Director*
*Janet Roth, Director of Professional Development*
*Center for Research on Learning*

In December, KU-CRL staff prepared a series of materials for a presentation to school officials in California. Among the materials were descriptions of Content Enhancement Routines and Learning Strategies complete with a summary of research related to each routine or strategy. Because these materials will be useful for all SIM Trainers, this issue of *Stratenotes* features the Learning Strategies information we prepared. The Content Enhancement information appeared in the March issue.

### What is a Learning Strategy?

Learning strategies are used by students to help them understand information and solve problems. A learning strategy is a person's approach to learning and using information. Students who do not know or use good learning strategies often learn *passively* and ultimately fail in school. Learning strategy instruction focuses on making the students more *active learners* by teaching them *how to learn* and *how to use* what they have learned to solve problems and be successful.

- **Strategies for Reading**
  - Word Identification Strategy
  - Self-Questioning Strategy
  - Visual Imagery Strategy
  - Paraphrasing Strategy
- **Strategies for Studying & Remembering Information**
  - FIRST-Letter Mnemonic Strategy
  - Paired Associates Strategy
  - LINCS Vocabulary Strategy
- **Strategies for Writing**
  - Sentence Writing Strategy (Fundamentals)
  - Sentence Writing Strategy (Proficiency)
  - Paragraph Writing Strategy
  - Error Monitoring Strategy
  - InSPECT Strategy (for word-processing spellcheckers)

## More calendar

July 15-16, 2002
Preconference Advanced Trainer Workshop
Lawrence, Kansas

July 17-19, 2002
International SIM Trainers' Conference
Lawrence, Kansas

July 22-26, 2002
Potential Trainer Workshop for Learning Strategies and Potential Trainer Workshop for Content Enhancement
Seattle, Washington
Contact Patty Graner
(206) 769-9626
pgraner@smarttogether.org

July 22-26, 2002
Potential Trainer Workshop for Learning Strategies
St. Louis, Missouri
Contact Bev Colombo
(314) 989-8429
bcolombo@ssd.k12.mo.us
or Mary Ellen O'Hare
(314) 989-8259
mohare@ssd.k12.mo.us

August 5-9, 2002
Potential Trainer Workshop for Content Enhancement
Los Angeles, California
Contact Ginger Williams
(323) 932-2080
gingerteach@attbi.com

*Send your news to Julie Tollefson at the Center for Research on Learning, 521 Joseph R. Pearson Hall, 1122 West Campus Road, Lawrence, KS 66045 or e-mail Julie at jtollefson@ku.edu.*

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Contributors: Donald D. Deshler
Jean B. Schumaker
B. Keith Lenz
Jim Knight
Janet B. Roth
Editor: Julie Tollefson

- **Strategies for Improving Assignment & Test Performance**
  - The Assignment Completion Strategy
  - Strategic Tutoring
  - Test-Taking Strategy
- **Strategies for Effectively Interacting with Others**
  - Self-Advocacy Strategy
  - SLANT – A Classroom Participation Strategy
  - SCORE Skills: Social Skills for Cooperative Groups
- **Strategies for Learning as a Team or Class**
  - THINK Strategy (Problem Solving)
  - LEARN Strategy (Learning Critical Information)
  - BUILD Strategy (Decision Making)

## Learning Strategies Curriculum

The learning strategies listed here have been successfully field-tested with students judged to be at risk for academic school failure; additionally, all of the strategies have been field-tested with students judged to have learning disabilities. The research took place in public schools, primarily in middle and high school settings, and the strategies were field-tested by teachers.

Research has demonstrated that consistent, intensive, explicit instruction and support are key ingredients for instructional success. A combination of instructional models involving general education teachers and special education teachers, individually and collaboratively, has been successfully tested.

All of the strategies are taught using a standard set of instructional procedures. These procedures define the necessary instructional conditions needed regardless of where the instruction occurs.

## Strategies related to reading

***Word Identification Strategy:*** The *Word Identification Strategy* provides challenged readers with a functional and efficient strategy to successfully decode and identify unknown words in their reading materials. The strategy is based on the premise that most words in the English language can be pronounced by identifying prefixes, suffixes, and stems, and by following three short syllabication rules. In the research study, the students made an average of 20 errors in a passage of 400 words before learning this strategy. Having learned the *Word Identification Strategy,* students reduced their errors to an average of three per 400 words. Reading comprehension increased from 40 percent on the pretest to 70 percent on grade-level passages.

***Visual Imagery Strategy:*** The *Visual Imagery Strategy* is a reading comprehension strategy for creating mental movies of narrative passages. Students visualize the scenery, characters, and action, and describe the scenes to themselves. Research results showed that students who demonstrated a 35 percent comprehension and recall rate before learning the strategy improved to an 86 percent comprehension and recall rate after learning the strategy.

***Self-Questioning Strategy.*** The *Self-Questioning Strategy* helps students create their own motivation for reading. Students create questions in their minds, predict the answers to those questions, search for the answers to those questions as they read, and paraphrase the answers to themselves. Research results have shown average gains of 40 percentage points in reading comprehension on grade-level materials after students have learned the strategy.

***Paraphrasing Strategy:*** The *Paraphrasing Strategy* is designed to help students focus on the most important information in a passage. Students read short passages of materials, identify

the main idea and details, and rephrase the content in their own words. Using grade-level materials, students performed at a 48 percent comprehension rate before learning the strategy. During the posttest, these students comprehended 84 percent of the material.

## Strategies related to storing and remembering information

***FIRST-Letter Mnemonic Strategy:*** The *FIRST-Letter Mnemonic Strategy* is a strategy for independently studying large bodies of information that need to be mastered. Specifically, students identify lists of information that are important to learn, generate an appropriate title or label for each set of information, select a mnemonic device for each set of information, create study cards, and use the study cards to learn the information. Research results showed that students who learned the *FIRST-Letter Mnemonic Strategy* received test grades that increased from an average of 51 percent to 85 percent.

***Paired Associates Strategy:*** The *Paired Associates Strategy* is designed to help students learn pairs of informational items, such as names and events, places and events, or names and accomplishments. Students identify pairs of items, create mnemonic devices, create study cards, and use the study cards to learn the information. Research has shown that before students learned this strategy, they answered correctly only an average of 8 percent of test questions related to paired information when the paired information was identified for them. After they mastered the strategy, they answered correctly an average of 85 percent of the questions about paired information that was identified for them. When given reading passages to study on their own, they answered an average of 22 percent of test questions correctly before instruction in the strategy versus answering 76 percent correctly after mastering the strategy.

***LINCS Vocabulary Strategy:*** The *LINCS Vocabulary Strategy* helps students learn the meaning of new vocabulary words using powerful memory-enhancement techniques. Strategy steps cue students to focus on critical elements of the concept, to use visual imagery, associations with prior knowledge, and key-word mnemonic devices to create a study card, and to study the card to enhance comprehension and recall of the concept. Research results showed that in the social studies class where the LINCs Strategy was taught to the students, the students with LD performed at a mean of 53 percent in the pretest and at a mean of 77 percent correct answers after learning the *LINCs Strategy.* In the control class, where students did not learn the *LINCs Strategy,* the mean percentage of correct answers decreased from the pretest to the posttest.

## Strategies related to expressing information

***Sentence Writing Strategy:*** The *Sentence Writing Strategy* program comprises two parts: *Fundamentals in the Sentence Writing Strategy* and *Proficiency in the Sentence Writing Strategy.* Together, these components constitute a strategy for recognizing and writing 14 sentence patterns with four types of sentences: simple, compound, complex, and compound-complex. The program consists of two products: an *Instructor's Manual* and a *Student Lessons Manual.* The *Instructor's Manual* features a systematic sequence of instructional procedures; the *Student Lessons Manual* features exercises that correspond to instructional procedures. Research results showed that students wrote an average of 65 percent complete sentences on the pretest and an average of 88 percent complete sentences on the posttest.

***Paragraph Writing Strategy.*** The *Paragraph Writing Strategy* is a strategy for organizing ideas related to a topic, planning the point of view and verb tense to be used in the paragraph, planning the sequence in which ideas will be expressed, and writing a variety of topic, detail, and clincher sentences. The program consists of two products: an *Instructor's Manual* and a *Student Lessons Manual.* The *Instructor's Manual* features a systematic sequence of instructional procedures; the *Student Lessons Manual* features exercises that correspond to the instructional procedures. Research results showed that the students earned an average of 40 percent of the points available when writing a paragraph on the pretest and an average of 71 percent of the points available when writing a paragraph on the posttest.

***Error Monitoring Strategy:*** The *Error Monitoring Strategy* can be used by students to independently detect and correct errors in their written work to increase the overall quality of their final product. Instruction stresses the importance of proofreading written work for content and mechanical errors and eliminating those errors before work is submitted. This strategy also includes the development of personal strategies to avoid future errors. Research results demonstrated that students who mastered this strategy

dramatically increased their ability to find and correct errors in their written products. Before instruction, they were making one error in every four words. After instruction, they made only one error in every 20 words.

***InSPECT Strategy:*** The *InSPECT Strategy* can be used by students to detect and correct spelling errors in their documents either by using a computerized spellchecker or a hand-held spelling device. Research results showed that students corrected 41 percent of the errors in their compositions before being trained in the *InSPECT Strategy* and corrected 75 percent of the errors in their composition after receiving training in the *InSPECT Strategy.*

## Strategies related to demonstrating competence

***Assignment Completion Strategy:*** The *Assignment Completion Strategy* is designed to enable students to complete and hand in assignments on time. The package consists of two books: the *Instructor's Manual,* which provides step-by-step instruction for teaching this strategy, and the *Quality Quest Planner,* a spiral-bound notebook designed specifically for student use with the strategy. Each *Instructor's Manual* comes with one *Quality Quest Planner* and contains the materials needed to teach the strategy, including blank copies of the forms used with the planner. The planner contains sufficient forms for recording, scheduling, and evaluating assignments for an entire academic year. Performance results in general education classes showed that the number of students who simply turned in their assignments before learning the *Assignment Completion Strategy* was 43 percent with the percentage increasing to 77 percent after students learned the strategy. Before learning the strategy, the number of student who did the assignment correctly was 45 percent. After learning the strategy, the number of students who did the assignment correctly increased to 73 percent. Researchers conducted interviews with students who did not hand in the assignments to discover their reasons for not turning in the assigned work. The main reason students gave was that they did not understand how to do the assignment.

***Strategic Tutoring:*** *Strategic Tutoring* describes a new vision of the tutoring process in which the tutor not only helps the student complete and understand the immediate assignment but also teaches the student the strategies required to complete similar tasks independently in the future. Research results showed that the students in strategic tutoring improved their achievement test scores in reading comprehension, written expression, and basic math skills. On average, their grade-level achievement scores increased by 10 months during a four-month instructional period. In contrast, the students in the comparison group without the strategic tutoring instruction experienced a mean gain of only 3.5 months during the same period.

***Test-Taking Strategy:*** The *Test-Taking Strategy* is designed to be used while taking classroom tests. Students allocate time and priority to each section of the test, carefully read and focus on important elements in the test instructions, recall information by accessing mnemonic devices, systematically and quickly progress through a test, make well-informed guesses, check their work, and take control of the testing situation. The emphasis is on teaching adolescents and adults who struggle with learning. Research results in which students were taught the *Test-Taking Strategy* produced an average 10 point increase on tests for participating students.

## Strategies related to social interaction

***Self-Advocacy Strategy:*** The *Self-Advocacy Strategy* can be used by students when preparing for and participating in any type of conference, including education and transition planning conferences (that is, IEP or ITP conferences). Strategy steps provide both a way for students to get organized before a conference and effective communication techniques for students to use during the conference. When students learned the *Self-Advocacy Strategy,* 86 percent of the goals they most valued were found in their IEPs. The students who had not learned the *Self-Advocacy Strategy* had only 13 percent of their desired goals in their IEPs.

***SLANT: A Starter Strategy for Class Participation*** is a simple, easy-to-teach strategy designed to help students learn how to use appropriate posture, track the talker, activate their thinking, and contribute information.

***Surface Counseling:*** *Surface Counseling* details a set of relationship-building skills necessary for establishing a trusting, cooperative relationship between an adult and a youth and a problem-solving strategy that youths can learn to use by themselves. Materials include study guide questions, model dialogues, and role-

playing activities. This is useful for an adult who has daily contact with children and adolescents. Research results showed that teachers who had not been trained in *Surface Counseling* used an average of 23 percent of the *Surface-Counseling* identified skills to counsel students on a problem. After being trained in *Surface Counseling,* the teachers performed an average of 93 percent of the *Surface-Counseling* components in counseling sessions. They also reported an increased feeling of confidence and competence in counseling sessions.

## Cooperative Thinking Strategies

***THINK Strategy:*** The *THINK Strategy* is used by students working together in teams to systematically solve problems. The research studies in which this strategy was used developed school improvement goals in which problem solving, reasoning, and communicating were major targeted areas. Results showed that the mean percentage of points earned by the groups before instruction was the same for experimental and comparison groups at 34 percent. However, at the end of the school year, the mean percentage score for the experimental groups was 84 percent and for the comparison groups 39 percent.

***LEARN Strategy:*** The *LEARN Strategy* was designed to enable students to work in teams to learn together. Each step promotes creative cooperation; students think together to generate ideas to help them learn. Research results indicated that students in the experimental classes performed a significantly higher percentage of study behaviors than comparison students in their cooperative study groups at the end of the school year. Experimental group pretest scores averaged 18 percent with posttest scores averaging 70 percent. The comparison group pretest score average was 27 percent with the posttest score average 35 percent.

***BUILD Strategy:*** The *BUILD Strategy* is a strategy students can use to work together to resolve a controversial issue. The purpose of the strategy is to enable students to work together to make decisions using a process similar to a debate. Research results showed that the average score from the observational measure and products written by students as they discussed the issue for the experimental students was 21.4 percent on the pretest and 80.1 percent after learning the *Build Strategy.* The comparison group that did not learn the *Build Strategy* scored 15.1 percent on the pretest and 19.6 percent on the posttest.

***SCORE Skills: Social Skills for Cooperative Groups*** describes a set of social skills that are fundamental to effective groups. Students learn to share ideas, compliment others, offer help or encouragement, recommend changes nicely, and exercise self-control. Results showed the mean percentage of cooperative skills used by students in cooperative groups in class before learning *SCORE* was 25 percent and increased to 78 percent after learning *SCORE Skills.* Students in the comparison group that had no instruction in *SCORE* had average scores of 25 percent and 28 percent for the cooperative skills they used in the cooperative groups. ☒

## SIMville

### SIMTRAINER-L

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**listproc@ukans.edu**

In the body of the message, type

**sub SIMTRAINER-L Your Name**

Replace "Your Name" with your name. Note that SIMTRAINER-L is all one word; do not type any spaces in the list name. Do not type anything in the subject line of the message.

### SIMville

SIMville is the first place to look for training and classroom activities. From the Center's web site,

**www.ku-crl.org**

click on "SIM Trainer Resources." When you select the log on option, you will be asked for a password. Type "**strategic**" in the box (do not type the quotation marks). The password is case-sensitive, so you must use all lowercase letters. Click on the "OK" button. To bypass the password screen in the future, bookmark the first SIMville page.

**New on SIMville:**

- Updated directory information form
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- 2002 International SIM Trainers' Conference information, including registration form, call for presentations, preconference information
  **http://www.ku-crl.org/trainers/updates/conference.html**