*S*trategram™

Planning for Concept Instruction

— content enhancing device —

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The learning strategies included in the Strategies Intervention Model focus on teaching students how to become independent learners. This is critical to the success of students with learning disabilities. It is not, however, the only way that students can be helped to learn. Another method involves the use of teaching procedures to present information when students are not using effective and efficient learning strategies. It is important that content area teachers who are responsible for presenting a great deal of information use these teaching procedures to help students learn. The goal of such teaching procedures is to effectively mediate learning to compensate for the fact that there is some material that the student cannot learn independently.

This approach utilizes teaching routines to enhance the meaningfulness of content by helping students to organize, understand, remember and believe in the importance of the information. The approach is referred to as content enhancement. Ideally, the use of content enhancement will increase the chances that students at risk for school failure and students with learning disabilities will learn the content as part of regular class group instruction. Another goal is that students without learning disabilities will also learn content.

Use of content enhancement teaching routines requires the teacher to carefully select, organize, manipulate and enhance the critical features of key information that students are to learn. This is accomplished when a teacher selects specific instructional devices that can be used to enhance learning and then develops and implements an instructional routine with students. A content enhancement teaching routine is a set of integrated instructional procedures designed to help structure teaching so that learning difficulties are addressed. A routine is built around an instructional device and involves the delivery of large amounts of information. One of the major uses of content enhancement devices and routines is to promote student understanding of information. Since the understanding of concepts is a major area of need for all students, including students who struggle to learn, content enhancing devices will be illustrated through the use of a Concept Diagram. Content enhancing routines will be illustrated through an explanation of the Concept Teaching Routines in the next issue of Strategram.

The Concept Diagram is a graphic instructional tool that is at the center of teacher planning for teaching concepts using the Concept Teaching Routine, and evaluating concept learning. Although the teacher must carefully construct the Concept Diagram prior to using it in class, the intent is that classroom use of the diagram is always in cooperation with the students. When the diagram is used, interaction occurs between the teacher and students as well as between students. The Concept Diagram is developed in a partnership so it builds on what the students know. **An example of a Concept Diagram is on page 6.**

Nevertheless, careful planning is

> **"This approach utilizes teaching routines to enhance the meaningfulness of content....."**

essential. One of the benefits of using the Concept Diagram is that during planning, the teacher explores each concept in depth. Teachers who use it indicate that as they explore a concept in detail and interact with students their confidence is increased. The steps in the preparation of a Concept Diagram will be described, and each step will be followed by a definition, an explanation, and an example with a discussion of how to fill out the Concept Diagram. **Editor's Note: The Concept Teaching Routine will be covered in the next issue of Strategram, Vol. 4, No. 5.**

Steps in Preparing a Concept Diagram

1. Specify the concept name. The concept name is the word or group of words used to identify a given concept.

As you work with concepts, you will realize that the word "concept" is

placed on the top of the Concept Diagram in the rectangle. Since each element of the Concept Diagram has a specific associated graphic, it is important that it be used with that graphic. For students with learning disabilities, the use of a recognizable format with visual and well as verbal signals may serve to enhance learning. In this case, the word "Mammal" is placed in the rectangular box that appears beside the word "Concept Name."

2. Identify the characteristics of the concept. A characteristic is an identifying feature, quality or trait of the concept.

In exploring concepts, you will realize that the word "characteristic" must be used exactly. First, check that students understand what a "characteristic" is. Second, students must understand that "characteristics" as they are used in a Concept Diagram may fall into one of three

Concept Diagram allows the teacher to be comfortable as students explore many different characteristics. Some of the suggestions about characteristics that belong to the selected concept class may seem "far out" but often let the teacher interpret where the students' prior knowledge is inaccurate information.

The characteristics of the concept are always placed in the center of the Concept Diagram in areas provided by solid or broken lines. Again, each element of the Concept Diagram has a specific associated graphic, and it is important that it be used with that graphic. Characteristics that are always or sometimes present are denoted by solid lines, and characteristics that are never present are denoted by broken lines.

3. Locate examples and non-examples of the concept. An "example" of a concept is an illustration, case or instance of a concept. A

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often used very loosely. In fact, it is often used as a synonym for "idea" or "topic." As used here, however, it refers to a class, group, or category of items that have certain characteristics or attributes in common. You may have to verify with your students that they understand this definition.

Examples of a concept name may consist of single words such as "mountain" or more than one word such as "economic systems." Furthermore, concepts may consist of concrete objects (bridges), ideas (beauty), or theories (communism).

The name of the concept is always

groups. Some characteristics are always present in all members of a concept group (the "always characteristics"); some are present in some members of the concept class but not in others (the "sometimes characteristics"), and there may be some characteristics that cannot occur in any member of a concept class (the "never characteristics").

Characteristics may consist of single words such as "hairy" or more than one word such as "feeds young on mother's milk." One of the most critical parts of the Concept Diagram is the exploration of characteristics. Careful planning prior to using the

"nonexample" is an illustration, case or instance of a concept that lacks one or most characteristics that must always be present in members of a concept class.

Examples and nonexamples of a concept may be used in two ways. When students are first learning about the concept, you may want to present carefully planned pairs of examples and nonexamples to help students discriminate examples from nonexamples. A second way to encourage students to think is to plan to give them a possible example and ask them to decide if it is an example or

nonexample of the concept. This should be a challenging activity, and you may want to have several possible examples planned in advance.

Begin with obvious pairs of examples and nonexamples. For instance, many students are aware that a cat is a mammal but that a snake is not. However, plan for examples and nonexamples to become less obvious so that you can be sure that students are acquiring a deep understanding of the concept. In this case, you may want to really test their understanding of the concept of mammal by exploring with them why a bat is a mammal and a bird is not.

The examples and nonexamples of the concept are always placed in the area of the Concept Diagram denoted by closed ovals or broken ovals. Again, each element of the Concept Diagram has a specific associated graphic. It is important that examples and nonexamples be used with the graphic that is shown. In addition, space has been provided in a central area to use as a "testing ground" on
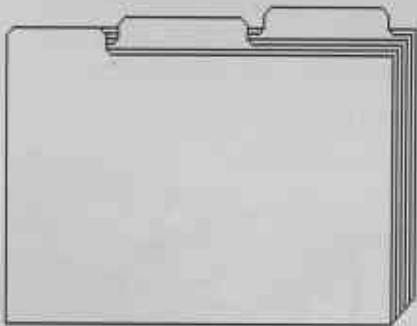
which you can place items that may or may not be examples of the concepts. Students can be challenged to decide for themselves using the skills of checking characteristics of the item in the testing ground with the characteristics that must always be present in the concept. After testing, these items can be placed in the correct column as examples or nonexamples.

4. Construct a definition of the concept. A definition of a concept is a statement that names the concept and identifies all of the characteristics that must always be present in all members of the concept class. Ideally, it will include the larger group to which the concept belongs.

Most teachers construct the definition with the students after the rest of the Concept Diagram has been completed working with them to make sure that they include all of the "always characteristics." A refinement in the definition is the inclusion of the larger group to which the concept under consideration belongs. This is an important thinking skill that can be encouraged. Encourage students to ask what is the bigger group to which mammals belong.

. It is a good idea to begin with simple, concrete concepts so that students can readily identify the larger group. For example, they may easily understand that "mammals" are part of the larger group of "animals." This will lay the foundations for more abstract clustering such as the fact that the concept of "democracy" is part of a larger group of "political systems."

The definition of the concept is always placed in the area of the Concept Diagram denoted by the larger rectangle below the rectangle that contains the name of the concept. Plan to let the students construct a definition together. As students gain expertise, they often engage in spirited discussions in which the definition is refined and clarified.

These are important considerations as you plan to use a Concept Diagram in your class. In our next issue, we will discuss the Concept Teaching Routine associated with the Concept Diagram.
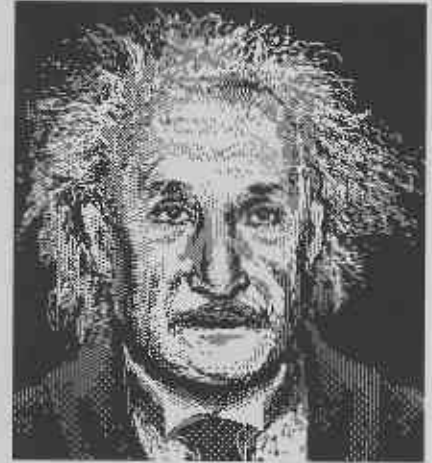
"Turn on" to the Strategies

Edwin S. Ellis, Ph.D.
University of Alabama

One of the more challenging aspects of implementing SIM with a new group of students is winning them over to a *"strategies point of view."* While we may show students the "before" and "after" results attained by other students who use strategies, discuss the advantages of knowing and using a learning strategy, and even get them to write statements indicating their commitment to learn a new strategy, putting forth the effort to learn a new strategy still requires an act of faith on their part that all the work will eventually pay-off. This is particularly true when students have to sacrifice opportunities for meeting immediate needs (i.e., tutoring for that big science test next Friday) in order to make time for learning a new strategy.

True commitment to learn and use the strategies really does not happen until students have had an opportunity to actually experience the benefits in personal contexts such as their regular classes. Unfortunately, these experiences are not always immediately forthcoming. Some strategies, though highly desirable to learn, require intensive and extensive instruction, and they require several weeks and even months to master. We've probably all experienced that moment of panic when we sense we're losing the motivation of a student, but if he could just hang in there a little longer, he'd really see why this strategy is so useful.

Starter Strategies™

What has been needed is a set of strategies that can be used to *"turn students on"* to learning and using effective and efficient strategies. To meet this need, we are introducing the Starter Strategy Series. A Starter Strategy can be learned quickly, can be readily used within a variety of settings, and can be easily taught. As a result of learning a Starter Strategy, students learn what a strategy is and how they can use it to improve their performance. Later, when students are taught powerful strategies that are not easily learned, they will have stronger motivation to master them. In short, Starter Strategy instruction is a low-keyed, simple approach to introduce students to a new way of learning and performing in school. After their exposure to one or two Starter Strategies, students should be ready for instruction in more complex strategies that require greater personal commitments to learn.

A secondary benefit to teaching Starter Strategies is to acquaint students with instructional practices that may be relatively new to them. For example, many students who are learning a strategy for the first time also have to learn about pretests, goal setting, instructional stages, progress charts, evaluation forms, verbal elaboration and rehearsal practices, the difference between controlled practice and advanced
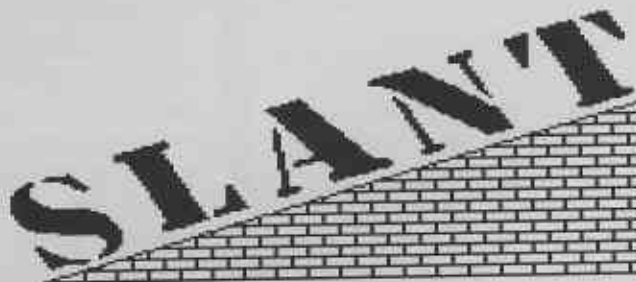
practice, a host of processes associated with generalization, and so forth. For some, becoming acquainted with these instructional practices while at the same time learning a complex set of cognitive processes associated with a learning strategy can be a bit overwhelming.

Teaching students a Starter Strategy permits them to learn about many of these instructional practices in a low-keyed context. You might think of it as a form of "controlled practice" for learning about the stages of acquisition and generalization.

SLANT: A Starter Strategy for Increasing Class Participation

The first of this series to be published is *SLANT: A Starter Strategy for Increasing Class Participation.* The steps of this

> ## *"The steps of this strategy focus on enabling students to combine nonverbal, cognitive, and verbal behaviors to activate their participation in class."*

strategy focus on enabling students to combine nonverbal, cognitive, and verbal behaviors to activate their participation in class. Using the strategy helps students to increase the amount of classroom interaction. They learn how the use of positive participation behaviors can influence the reactions of others toward them, thus enabling them to exercise more control over their learning experiences. They also learn how to think more actively during class.

There are several benefits associated with increasing student participation. Using the strategy:
* sends a message to teachers that they are interested and engaged in their instruction
* increases understanding and remembering of the information being addressed during class, thus reducing the amount of independent study needed for tests
* enables students to practice a host of important cognitive actions (e.g., comprehension monitoring, question asking, using prior knowledge, etc.)
* causes teachers to respond to students in friendlier ways
* enhances the quality of instruction they receive
* results in learning becoming more personal, interesting, and fun

Research on this strategy has also demonstrated that students who use the strategy significantly increase the amount of contributions they make to class discussions in mainstream settings. For example, they asked more questions, and they volunteered more verbal statements related to their lessons. They also *looked* like they were more interested during class. Changes are also documented in mainstream teachers' perceptions of LD students. Teachers perceived these students as more interested, more attentive, and as having more positive attitudes about learning following the training.

Teaching the strategy requires only a few days, and it can be readily practiced as you teach other subjects. Since it is designed to turn students on to learning and using strategies, a host of fun activities have been developed for use when teaching it. An instructional manual is available from Edge ($3.00), and formal training is not required to order it. The manual outlines a set of suggestions for teaching the strategy, and it *loosely* follows the stages of acquisition and generalization so that students can become acquainted with this instructional process. **To order the SLANT Strategy booklet please send your name, address, and your check for $3.00 plus $1 for shipping and handling to: Edge Enterprises Inc.; P.O. Box 1304; Lawrence, KS 66044.**

CONCEPT DIAGRAM A

Concept Name:

MAMMALS

Definitions: Mammals are warm-blooded animals that have hair and nurse their young.

Characteristics Present in the Concept:

Always	Sometimes	Never
warm-blooded	can fly	cold blooded
have hair	live in water	
nurse their young	can talk	
	walk on 4 legs	

Example:

- humans
- elephants
- whales
- bats

Nonexample:

- snakes
- alligators
- sharks
- birds

"Overhead Bingo Card"
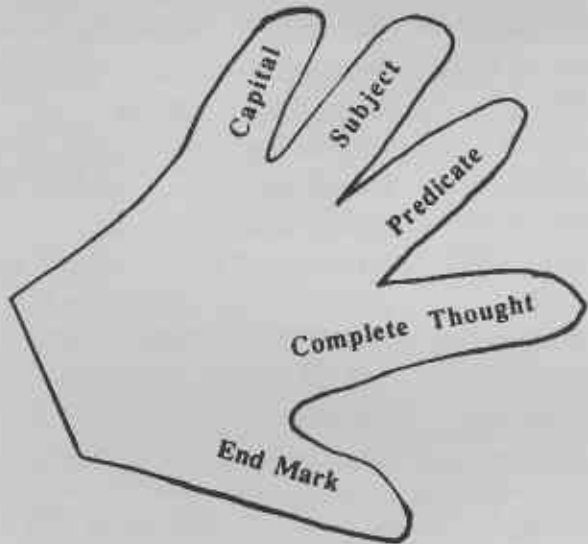
B	I	N	G	O
peacock	went	island	fish	jump
corn	mailman	dig	look	breathe
curtain	shut	*Free Space*	give	potato
train	ball	hair	bake	hear
nab	ear	finger	blink	flower

Capital
Subject
Predicate
Complete Thought
End Mark

Fun, Games & Learning with Karen Koskovich Delmar, Iowa

Karen Koskovich is a one person Special Education Department. She serves eleven elementary students in a part-time resource program at Delwood Elementary School. Karen teaches the Sentence Writing Strategy and the Word Identification Strategy and has discovered that the effectiveness of strategies frequently depends on how well the students know the prerequisites for each strategy. She believes that

Karen Koskovich

these prerequisites are important for students' understanding and use of the strategy.

Karen capitalizes on the competitive spirit of her students and has developed "hundreds of home-made games" used to "pre-teach"

concepts like prefixes, suffixes, the twenty-three helping verbs, subjects and conjunctions. Among her repertoire are "prefix-suffix checkers", "overhead bingo" and the "hand-touch method".

"Prefix-suffix checkers" is used to preteach prefixes and suffixes by writing the prefixes and suffixes in the checker board squares so they can be read both ways. The game uses regular checkers rules. While playing the game, the students must say the sounds each time they land on a square.

"Overhead bingo" uses acetate sheets and overhead markers to make a bingo card (See example of a card on page 7). For example, if the objective is to teach the difference between nouns and verbs, nouns and verbs would be placed on the squares of each bingo card. The student rolls the die that has the words, "noun", "verb", "subject" or "predicate" on its sides. The student then locates on the BINGO card the noun, verb, subject or predicate that meets the requirement. The student then places a transparent marker on the appropriate bingo space.

Students may try for 3, 4 or 5 in row to win.

The "hand-touch method" was developed to help students who prefer tactile learning. As they check their work, students use their fingertips to remind themselves of the key elements of good sentence construction (See an example of the " method" on page 7). By combining the "hand-touch method" with the *Sentence Writing Strategy*, Karen feels she can develop stronger writers.

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