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STRATEGIC INSTRUCTION MODEL

VOLUME 10 The University of Kansas Center for Research on Learning NUMBER 3

April 1998

The Clarifying Routine

Elaborating vocabulary instruction

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The routine focuses on ways teachers can help students understand and remember new terms.

When you think of vocabulary, there is a good chance that you think of long lists of words from social studies or science textbooks, spelling word lists, or even the humongous lists of terms to study for college entrance exams. Zillions of flash cards also may come to mind. No doubt you share the common childhood experience of having to "go look up the words in a dictionary, write the definition, and then write a sentence using the term"—but how much of that vocabulary do you remember now? Do you remember how you could rote copy the definition of a term as part of a homework assignment but have no real idea what the definition meant and still get an "A" on the assignment?

Perhaps the least effective way to study vocabulary is the *"look and remember"* technique. Here, students typically stare at the term and definition, apparently trying to activate the photographic memory they wish they had. Another common study technique is *"rote verbal rehearsal"*—saying it over and over again, usually in the exact language and format in which the definition originally came.

Ross Perot, with his unique use of the English language, said it best—*"That dog don't hunt!"* In other words, many of the traditional techniques teachers and students use to learn vocabulary just do not work. In fact, most students, not just those with learning problems, rarely remember the meanings of new terms beyond the test. This raises a very disconcerting question: If students don't remember the definitions of new terms after the test, why bother requiring them to memorize these definitions in the first place, since it seems to be a waste of time?

We know from research that new terms must be defined using language and examples that already are familiar to students and that the more ideas from background knowledge with which students can associate the new term, the more likely it will become well "networked" and become a permanent part of memory. A variety of tactics and strategies can be mediated by the teacher to help students understand and remember new terms as well as the significance of important names, events, places, or processes. All of these tactics involve facilitating elaboration in various ways.

Elaborating definitions of new terms

Several elaboration techniques appear to be particularly powerful facilitators of comprehension and memory of new terms. These are briefly described below.

Elaboration technique #1:
Teach new terms within the context of a meaningful subject-matter lesson, and facilitate student discussion that centers on use of the new term. At some point, students should use the new

term themselves multiple times in multiple contexts. In short, they should frequently use it in a sentence within the context of discussing broader topics.

The traditional practice of having students look up definitions and then write sentences using the new terms likely stems from the idea that students must think about a term and create a context within which it might be appropriately used. Although composing written sentences is an important elaboration technique for the learner, keep in mind that learning about the term within an overall context is essential to the development of relational understanding. Additionally, remember that oral practice with a term is important to mastery of the term and that students can use a term in speaking more quickly than they can in writing.

Clearly, providing opportunities for students to orally elaborate about new terms may require a significant portion of class time; however, it is certainly a worthwhile instructional practice. A problem might arise if students often are expected to memorize the definitions of far more terms than there is time to elaborate upon in class. To provide meaningful opportunities for elaboration, we need to teach considerably fewer terms and invest considerably more time in developing deep knowledge structures related to those that are really essential for students to know. The adage "less is more—depth is more" is very true in this context.

Another implication of this first elaboration technique is that the common practice (often associated with language arts classes) of having students attempt to learn long lists of unassociated words without the benefit of learning them within some meaningful context is largely a waste of the teacher's and student's time. Figure 1 provides a set of guidelines for how to be more selective about deciding which terms students should be taught.

Elaboration technique #2: *Facilitate paraphrasing of a new term's definitions so that students can identify the core idea associated with the overall meaning of the term as well as distinguish the new term's critical features.* If you were to dissect the semantic structure of the meaning of a new term, you would find that its definition actually has two main components: (1) the core idea of the new term (that is, its gist or main idea); and (2) critical features of the definition or specific bits of information in the definition that clarify the broader, more general core idea. This is analogous to paraphrasing a written paragraph where the reader says what the overall paragraph was about (the main idea) and

Guidelines for selecting to-be-learned vocabulary

Do...

Less is more—depth is more. Teach fewer vocabulary terms, but teach them in a manner that results in deep understandings of each term.

Teach terms that are central to the unit or theme of study. These are terms that are so important that if the student does not understand them, she or he likely will have difficulty understanding the remainder of the unit.

Teach terms that address key concepts or ideas. Although a text chapter may contain 15-20 vocabulary terms, there may be only 4 or 5 that address critical concepts in the chapter—sometimes only 1 or 2!

Teach terms that will be used repeatedly throughout the semester. These are foundational concepts upon which a great deal of information will be built over a long term.

Ø Avoid...

- Ø Teaching or assigning words from textbooks just because they are highlighted in some way (italicized, bold face print, etc.).
- Ø Teaching or assigning words just because they appear in a list at the end of a text chapter.
- Ø Teaching or assigning words that will have little utility once the student has passed the test.
- Ø Assigning words the teacher cannot define.
- Ø Assigning large quantities of words.
- Ø Assigning words that students will rarely encounter again.

Figure 1

CLARIFYING TABLE

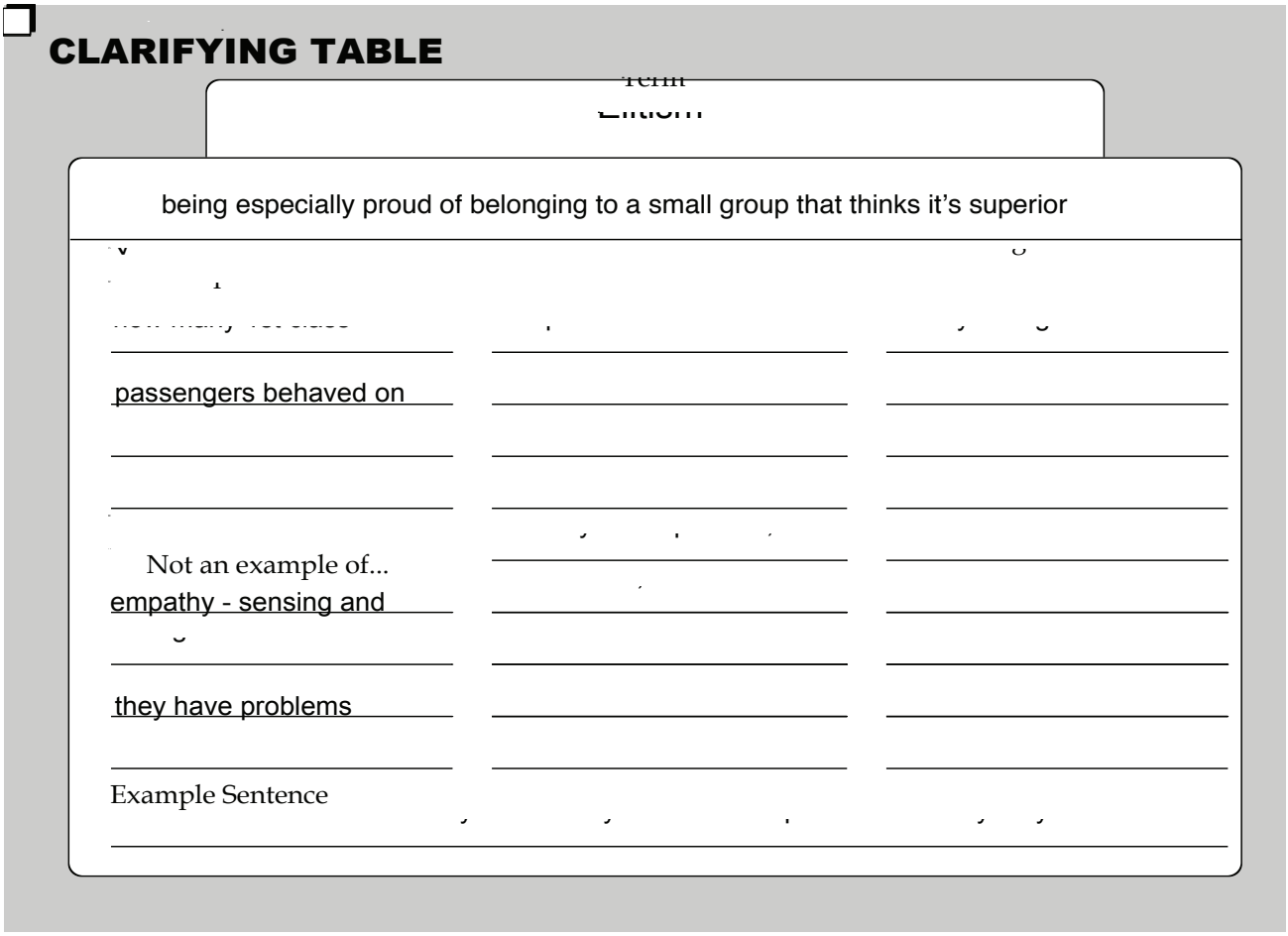

Figure 2

indicates important details in the paragraph. With new terms, the goal is to paraphrase the core idea of the term and identify specific critical-to-remember details that clarify the core idea.

Elaboration technique #3: *Make background knowledge connections to the new term.* Although teaching the new term in the context of a subject-matter lesson is a critical instructional technique, an equally important elaboration technique is for students to relate the term to something with which they already are familiar. Students can formulate knowledge connections in a wide array of ways. For example, they can identify how the term is related to previous subject matter they have learned, they can identify something from their personal life experiences of which the term reminds them, they can create metaphors or similes for the term, or they can say how the term relates to understanding or solving some form of real-life problem. An essential part of this elaboration process is having the students explain the connection. For example, the students should not only say what personal experience the term brings to mind, but also why it reminds them of it.

Elaboration technique #4: *Identify concepts/applications as well as non-concepts/non-applications related to the new term's meaning.* Comprehension is greatly enhanced if the learner can accurately identify a concept related to the term or ways the new term can be appropriately applied when discussing another context. For example, the term "peaceful resistance" might be used when describing Martin Luther King's approach to solving racial discrimination problems.

You likely will find that students' comprehension of new terms becomes considerably more focused and refined if they also can identify concepts that are not related to the term or inappropriate applications of the term. This can be facilitated by having the students discuss

what the term is not an example of or another term with which someone should not confuse the new term.

Elaboration technique #5: *Create multiple formats for which students can elaborate on the meaning of new terms.* Many teachers will use all of the above elaboration processes within the context of a class discussion, and yet some students still do not seem to get it. This is because the manner in which elaboration was facilitated was all "lip-ear" forms of instruction. In other words, it was all verbal or listening. Writing elaborations, even for those where scripting is a laborious process, creates an opportunity for greater reflection and thinking about the term's meaning. Other forms of elaboration involve acting out through role play the meanings of some terms or creating mnemonic pictures or stories that capture the essence of a new term's meaning.

The Clarifying Routine

The Clarifying Routine focuses on ways each of the above forms of elaboration can be facilitated. Teachers use an instructional tool, called a Clarifying Table, to facilitate these kinds of thinking behaviors. Figure 2 on page 3 illustrates a Clarifying Table that was used in the context of an integrated unit with a "Titanic" theme.

Although some teachers use the Clarifying Table to pre-teach vocabulary terms students will encounter in a lesson, I have been most successful using it as a way to "anchor" the meanings of terms whose meanings were first explored within the context of a subject-matter lesson. To put this in perspective, I might briefly introduce the meaning of new terms at the beginning of a lesson, then more thoroughly explore their meanings during the subject-matter lesson, and finally, use the Clarifying Table to solidify understanding of those terms that are really essential that students learn.

Forms of 'Do' instruction

The teacher can use the Cue-Do-Review sequence when applying the routine. I have found that the "Do" component of the routine can be very effectively applied in four basic ways (see Figure 3) adapted from Anita Archer's characterization of scaffolded instruction: *"I do it"* (model), *"We do it"* (provide guided practice), and *"You do it"* (independent practice). I usually include a *"Y'all do it"* phase before asking students to independently create Clarifying Tables.

'I do it' instruction

The purpose of the first phase of "Do" instruction is to provide students with a precise model of a well-constructed Clarifying Table depicting information related to an essential new term students need to learn. The first time students are introduced to Clarifying Tables, I usually provide one that I have completely constructed ahead of time and just walk them through it in much the same manner as I might explain the information depicted on a web or other pre-constructed graphic organizer. After explaining the information depicted on the Clarifying Table, I usually ask students several questions about what they like about the table and how well it helps them understand the meaning of a new term. I typically do this twice before moving to the next phase, "We do it."

'We do it' instruction

During "We do it" instruction, I am co-constructing Clarifying Tables with students. Although I may have constructed one for a new term before class as part of my planning process so my instruction will go smoothly, I don't show students the completed version. Rather, I first teach the meaning of the new term in the context of a subject-matter lesson, and then provide students with blank copies of a Clarifying Table. Together, we (the students and I), decide what ideas should be noted on the form. Thus, the whole class decides what to note as the "Core Idea" for the new term, what to list as "Clarifiers," "Knowledge

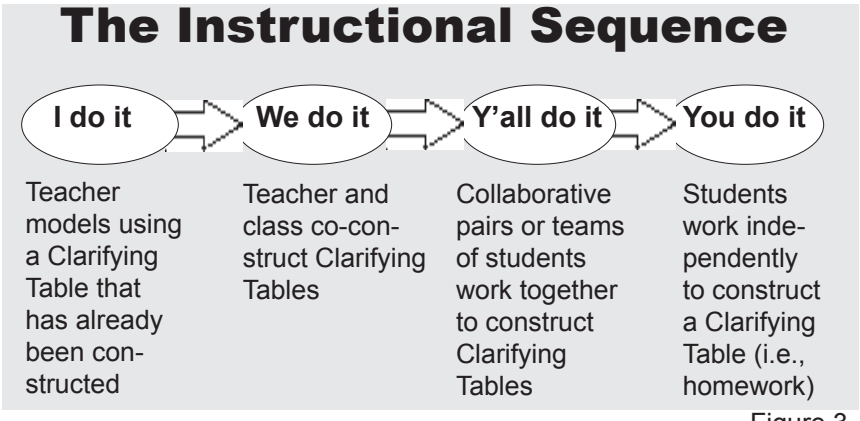

Figure 3

Connections," and so forth.

"We do it" forms of instruction continue through the year; thus, I never really stop co-constructing Clarifying Tables with students. As students become more confident and competent at constructing these tables, however, my role tends to shift from being the person who frequently cues students what to do and helps them actually phrase ideas to note on the form to a role that is much more like a "guide-on-the-side."

'Y'all do it' instruction

Once most students both understand the purpose of Clarifying Tables and can construct them with little assistance from me, I begin conducting cooperative learning activities where students work in pairs or small teams to construct Clarifying Tables without my assistance. Although the timing varies depending on the nature of the class, I usually begin incorporating "Y'all do it" activities after we, as a class, have constructed five to ten Clarifying Tables. Naturally, the more familiar students are with the meaning of the new term, the easier it is for them to construct a Clarifying Table; thus, I need to do a great job teaching the new term's meaning in the context of my subject-matter lesson before I ask students to work together to construct a Clarifying Table. "Y'all do it" activities allow students to have some support, but the nature of the support comes from peers rather than the teacher.

'You do it' instruction

The Clarifying Table is a versatile tool that teachers can use to teach the meanings for new terms and that students can use as a study tool for independently studying new terms. Thus, one of my goals is to enable students to be able to independently construct Clarifying Tables. "You do it" activities are designed to enable students to perform this task without assistance from others. Thus, "You do it" activities come in the form of assignments that students independently complete. An example would be requiring students to construct Clarifying Tables for five terms in lieu of requiring them to complete traditional study guides or answer the end-of-chapter textbook questions.

Assignments that require students to independently construct Clarifying Tables only occur, however, after a sufficient amount of scaffolded instruction has previously occurred. A very common mistake is to jump from providing an initial model ("I do it") to requiring students to independently do it themselves ("You do it") without the intermediate guided practice mediated by the teacher and by peers.

Integrating the Clarifying Routine with other learning strategies

Theresa Farmer (Oak Mountain Intermediate School, Birmingham, Alabama) is a teacher who worked with me to validate the Clarifying Routine during the research phase of its development. One of the ways she used it was to assign reading passages and have students take notes on the Clarifying Table about the main ideas and details of the text in the tradition of the Paraphrasing Strategy. She also incorporated it as a notetaking tool that students used during the context of exploring a subject-matter lesson. Theresa also used the Clarifying Table as a form of "think sheet" students used to plan their writing. Students would first complete a Clarifying Table about their topic, and then, when writing their essays, use the completed Clarifying Tables as a guide for organizing their ideas and ensuring they discussed meaningful information in their social studies and literature-related writing assignments.

Clarifying Tables are designed to facilitate the development of deep knowledge structures or in-depth and thorough understanding of terms. The LINCS Strategy, in contrast, is designed to create a mechanism for ready recall of definitions so that test-performance increases substantially. Used together, the LINCS Strategy and Clarifying Tables can form a powerful synergy to improve learning performance.

Almost always, there is room at the bottom of the "Knowledge Connections" section of the Clarifying Table to note a LINCing Story or picture. Thus, teachers who have been teaching and encouraging their students

(continued on page 8)

Check out these recent articles by Edwin S. Ellis:

- Ellis, E.S. (1997). Watering-up instruction for adolescents with mild disabilities: Part 1–The knowledge dimension. *Remedial and Special Education, 18,* 326-346.
- Ellis, E.S. (1998). Watering up the curriculum for adolescents with learning disabilities: Part 2–Goals of the Affective Dimension. *Remedial and Special Education, 19,* 91-105

The Clarifying Routine Instructor's Manual *is available for $8 from Edge Enterprises.*

Connecticut team studies widespread use of SIM

Alice Henley, a Strategic Instruction Model Trainer from Connecticut, reports encouraging results from a study examining the effect of widespread use of instruction based on the Strategic Instruction Model.

The Special Education Resource Center of Connecticut, where Alice works, has a strong history of success with its own version of SIM, called the Strategies Intervention Program. SERC staff members wondered what would happen if entire grade-level teams of educators taught *all* students these strategies. In 1994, they launched a study to determine just that.

The study followed a group of students who were taught strategies in the fifth grade. Researchers compared scores on the Connecticut Mastery Test (CMT) the students took in fourth grade, before they were introduced to strategies, to their CMT scores from the sixth grade, after they spent a year learning strategies. The researchers also compared their scores to those of fourth- and sixth-grade students who were not taught strategies.

The overall results indicated that, on the average, the students who were taught strategies made statistically significant gains in *all* of the written communications and reading components of the test.

The study

The study began during the 1994-1995 school year when teachers from Salem School, an elementary school in Connecticut, received strategies training. Three fifth-grade teachers, three sixth-grade teachers (included to promote continuity after the students in the study completed the fifth grade), two special education teachers, a reading consultant, and an administrator participated in the initial strategies training.

On the average, the students who were taught strategies made statistically significant gains in all of the written communications and reading components of the test

The original team consisted of fifth-grade teachers Caroline Ladd, John Szymkowicz, and Emily Dembinski along with support from reading consultant Elaine Wojcik and special educator Pat Campion. As it turned out, two of the fifth-grade teachers were reassigned to other grade levels before strategies instruction began for the students. Fortunately, two of the sixth-grade teachers who had completed training—Hazel Gorman and Frank Dion—took their places on the fifth-grade team. Alice Henley and Margaret Stewart, another SIM Trainer with the Special Education Resource Center, worked with these teachers throughout the study.

Training for the teachers focused on the following strategies: SLANT, the Idea Diagram for the Theme Writing Strategy, Test-Taking, Sentence Writing, Paragraph Writing, Error Monitoring, Listening and Notetaking, Paraphrasing, FIRST-Letter Mnemonic, Multipass, SCORE, and Teamwork. The teachers also learned the Concept Mastery, Clarifying, Unit Organizer, and Lesson Organizer Content Enhancement Routines.

After a year of strategies training, the teachers collectively prepared a curriculum integration plan to teach the strategies to the incoming fifth-graders. They agreed to target writing, believing this skill would have the most effect on the students' CMT scores.

Findings

The Connecticut Mastery Test can be used to evaluate student performance in three areas: writing, listening comprehension, and reading. Each of these areas contains categories for which mastery levels have been established. Figure 1 on page 7 shows the percentage of students in the experimental group who demonstrated mastery for each of the categories on the pretest and on the posttest.

Across all components, the experimental group's scores on the pretest compared to the comparison group's scores indicated that the fourth-graders in the experimental group performed at a lower level than their counterparts. By the sixth grade, however, the two groups' scores in most areas were similar, with a few exceptions.

- The experimental group

outperformed the comparison group on the holistic writing sample section of the writing component. This section evaluates the student's ability to coherently communicate a written message on a specified topic in 45 minutes.

- The comparison group performed better on the Constructing Meaning and Using Strategies section of the listening comprehension component.
- The comparison group scored significantly higher in the Constructing Meaning section of the reading component, but the experimental group scored higher in the Analyzing/Elaborating/Responding Critically section of the same component.

At the conclusion of the study, teachers and students were asked to evaluate the program. Teachers gave high marks to the training and technical assistance provided by SERC, and all said the strategies instruction had a positive effect on their instructional techniques. They also all agreed that use of the strategies enhanced students' ability to learn.

"The Test-Taking Strategy has given many students an opportunity to feel successful," one teacher explained. "Students have learned how to pace themselves and to focus on higher-value questions."

The teachers noted that students' papers were better organized, test scores and organizational skills had improved, and notes were better developed.

All of the teachers said that they would be involved in the Strategies Intervention Program again, if given a choice, and that they would recommend the program to other schools.

The students' responses were not as enthusiastic, though many of them noted improved grades and improved writing. Most of them (82 percent) recommended that other students should learn the strategies.

The essential message conveyed by student responses was that strategies instruction needs to be "more fun and less boring."

An official report of the study and its results sums up: "The data in this report convey the message that strategies have positive effects on student performance. While some of the more qualitative data indicate that learning the strategies may be less fun than the students would like, their CMT performance appears to be worth the effort."

More studies planned

Alice, who is the project coordinator, says SERC plans a second part for this study.

"It is SERC's ongoing belief that SIP can be a tool for all students to achieve success in the classroom," she said. "We continue to hope the gains made by students on the CMT can be built upon by introducing teachers to the use of additional methods of strategic instruction and content enhancement."

% of Experimental Group Students Above Mastery

	Pre	Post
Writing Component		
Prewriting/reference	42	73
Composing/revising	18	65
Editing	35	45
Holistic writing sample	35	40
Listening Comprehension Component		
Constructing meaning and using strategies	60	60
Analyzing/elaborating/responding critically	65	57
Reading Comprehension Component		
Constructing meaning	48	65
Applying strategies	18	47
Analyzing/elaborating/responding critically	45	67

Figure 1

Strategram
Vol. 10: 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.

Clarifying Routine

(continued from page 5)

to use the LINCS Strategy need not discontinue its emphasis in lieu of the Clarifying Routine. Both work well together.

In sum, the Clarifying Routine can be used to help students develop in-depth understanding of key terms associated with a unit of study primarily because it incorporates powerful elaboration tactics. The Clarifying Table is best used after the meanings of new terms have been explored in the context of a subject-matter lesson. The table can be constructed by the teacher and presented to students as the meaning of a term is explored, it can be co-constructed by the class and teacher, or it can be co-constructed by peers. Eventually, Clarifying Tables can become a powerful substitute for traditional homework assignments as students create them independently. The Clarifying Routine also can be readily used in conjunction with other learning strategies to develop literacy skills, note-taking skills, and test-preparation skills.

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