

Teaching...on purpose

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In the last 40 years, the field of learning disabilities has grown up.

Despite some false starts, researchers and educators have amassed valuable information about what constitutes an effective intervention program for students with learning problems, participants during July's International SIM Trainers' Conference were told. Keynote speaker Dr. Sharon Vaughn of the University of Texas presented her "Big Principles" of instruction for students with learning disabilities and some corresponding guidelines for instructional practices.

"One of the reasons I call this presentation 'Teaching on Purpose' is that we often say when we're growing up 'I didn't do it on purpose,'" she said. "I say to teachers just the opposite: 'Do it on purpose.'"

Vaughn's address incorporated the knowledge accumulated throughout 25 years of research as presented in four research syntheses representing more than 400 studies. What she found in reviewing these findings is that although there isn't an easy way to solve problems, the findings do offer guidance.

"Over the last 40 years, our field really has—through the work of researchers here at KU-CRL and other places—organized a set of principles that really do make a difference," she said. "We are at a time in the field where we know enough to make good decisions about instruction. Forty years ago, we did not know these things. Thirty years ago, we did not know these things. We took many paths that wasted students' time. We simply now know better."

Although Vaughn's principles encompassed the broader scope of all interventions in the learning disabilities field, it was clear from her presentation that the Strategic Instruction Model and the work of the Center for Research on Learning stand on solid ground. Many of her principles reflect the very foundation on which SIM was built.

Principle: In general, effective interventions produce even higher effect sizes for students in the general education classroom without learning disabilities.

"As you know, this is no small finding," Vaughn said of this principle. "Those of you that are working in general education classrooms are always at the point at which you have to answer the question, 'Well, yeah, maybe it's good for *your* kids,

Sharon Vaughn, endowed professor at the University of Texas at Austin, delivered her keynote address, "Teaching on Purpose: Implementing Instructional Practices that Matter" during the International

SIM Trainers' Conference in July. She also presented a workshop focusing on fluency and comprehension strategies that improve outcomes for students with disabilities. Vaughn has a distinguished list of publications and grant-funding credits to her name. She was a member of the Joint Committee on Teacher Planning for Students with Disabilities, which developed *Planning for Academic Diversity in America's Classrooms: Windows on Reality, Research, Change, and Practice*, published in 1995 by KU-CRL.

About...

About effect sizes

Many of Vaughn's principles refer to "effect sizes," a measure of student performance in relation to the use of an intervention. Higher effect sizes associated with an intervention equate to better student performance.

>>> but what about the rest of the kids?"

That's a legitimate question on the part of general education teachers and administrators who want to make sure the recommended interventions will benefit all students, not just students with learning disabilities, Vaughn said.

Not only do effective interventions help students without learning disabilities, too, but students overwhelmingly approve of appropriate adaptations that help students learn. The positive responses of average-achieving and high-achieving students help ensure that effective practices and interventions are adopted and accepted by teachers and students alike.

This finding reflects what we have learned in our own studies over the years. In designing our Content Enhancement devices and routines for use in general education classrooms, for example, we have paid close attention to the benefits realized by all groups of students as well as to how teachers feel about using the devices and routines. What we have learned through this process strengthens our products, increases the likelihood that beneficial interventions will be adopted, and leads eventually to success for more students in general education classrooms.

Principle: Making instruction visible and explicit is an essential feature of effective intervention.

The practice of making instruction visible and explicit involves such activities as teachers thinking aloud and walking students through a process, as SIM teachers do in the modeling stage of strategy instruction. It means providing not only positive examples but also negative examples so students see what the teacher does *not* mean. It means arranging instruction so students do not have to *discover* what the teacher wants them to learn.

"It's absolutely the most fundamental principle of content instruction," Vaughn said. "Let them know what the most important things are that you want them to know and then teach these things relentlessly."

Although SIM teachers are well aware of the value of this principle, much instruction in other classrooms today is not explicit. Many teachers seem to think they are somehow "cheating" if they explicitly tell students what they want them to learn, Vaughn said.

For instruction to be effective, however, teachers must overcome this notion, especially when teaching secondary students with learning disabilities.

These students often try to "hide" by piling books on their desks or slouching in their chairs. Their unspoken pact with teachers is, Vaughn said, "If you don't bother me, I won't bother you. I'll be quiet and not do very much, but you're not allowed to call on me." Employing this principle of visible and relentless instruction means these students can't hide.

Another part of this principle means acknowledging limits on the amount of content students can master.

"We all know that the students aren't going to learn everything, but we want them to learn *something* and we need to decide what it is we want them to learn. And it actually frees teachers up to think about it that way," Vaughn said.

SIM's Content Enhancement Routines help teachers make the big decisions regarding what content is most important for students to learn. Defining the big course questions and relating instruction throughout the year to those questions helps teachers focus on what is really important for students to learn. Concurrently, helping students learn how to learn, as we do with learning strategies instruction, enhances students' chances of success in these classes.

Vaughn noted that when teachers use strategic processes

to focus on understanding text and reading comprehension, effect sizes are very high. Interventions that include a combined model of direct instruction and strategy instruction yield the highest findings, she said.

"I know this is precisely what you all have been doing for >>>

the last 20 years,” Vaughn said of the combination of direct instruction and strategy instruction. “These are the two methods that when combined are associated with overall highest effect sizes. So you were right all along!”

Principle: Interactive dialogue between teacher and students and between students appears to be a critical component of effective interventions.

Students gain a deeper understanding of the information they are expected to learn when they have opportunities to talk about it with teachers and with each other. This holds true across age levels, Vaughn said. Students benefit when teachers allow time for them to talk about what they read and write in deeper and richer ways.

SIM materials deliberately build in many opportunities for discussion: Content Enhancement devices are completed collaboratively. The eight-stage instructional process for Learning Strategies calls for frequent student input and many opportunities for feedback and discussion.

Principle: What would typically be considered lower-level elements such as sounding out words in reading or handwriting or math facts are essential elements.

In the last 10 years, what we think of as lower-level elements of any process often have been “swept under the rug” in the search for effective interventions, Vaughn said. We now know, however, that a strong foundation of these elements is essential for student success.

Achieving a certain speed of writing is necessary to support written expression, for example. People can’t think about what they’re writing if they have to concentrate solely on forming letters. Likewise, students need to understand basic letter-sound associations if they are going to read fluently.

Much of CRL’s work has been directed toward adolescents, students whose lack of basic skills puts them far behind their peers in general education. Many of our learning strategies assume a certain level of competency. That’s why, in recent years, more attention of those affiliated with CRL—the teachers and trainers in the field—has turned toward adaptations for younger students or slower learners. Preskills (*Strategram* Vol. 9, No. 3) and *Fundamentals in the Sentence Writing Strategy* (*Strategram* Vol. 11, No. 5) are two examples of recent work in this area.

Principle: Students who are taught in small groups and pairs are associated with improved outcomes in reading and writing.

Despite the widely known value of small group instruc-

tion, the prevailing practice in many classrooms in many states and districts still involves a teacher lecturing to a large group of students, Vaughn said. Yet teachers can find ways to organize instruction for small groups and pairs. In fact, they should, because the gains in student performance as a result, especially for students with learning disabilities, are huge. Among the benefits of working in small groups or pairs, Vaughn noted, are the increased ability to provide effective instruction for all students, the ability to meet the cultural and linguistic needs of all learners (for example, students will translate for each other in small groups), and the ability to enhance opportunities for students with special needs.

Many SIM materials were designed with small group instruction in mind, and activities teachers have developed to enhance instruction frequently break students into groups. One example of these activities can be found in the “Seven-Step Shuffle for *Test-Taking Strategy*” on page 6; another, “Jigsaw reading activity,” was part of the May 1999 SIM Spotlight on the Center’s Web site:

www.ku-crl.org.

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In Addition

Small group instruction

Janette Cochran, SIM Trainer and Behavior Specialist at Holland (Michigan) Public Schools, shares this idea for dividing large groups into smaller groups: Pass out individually wrapped LifeSaver candies (that you have pre-selected and counted). Then, have all of the students holding red candies gather in one area, green candies in another, and so on. After students have formed their small groups, they can eat the candy!

>>

Principle: Motivation to learn, task difficulty, and task persistence are critical variables associated with effective interventions.

Two of the components of this principle—motivation to learn and task persistence—are directly linked, Vaughn said. Both of them are strongly dependent on the third component—task difficulty. For a student to be motivated to learn and stick with a task, the task's level of difficulty must be close enough to the student's performance level to allow the student to acquire information. That's why SIM's learning strategy instruction begins practice with controlled materials designed to allow students to experience success using the strategy. As students gain confidence and skills, instruction builds toward practicing with grade-level materials and finally actual content class materials.

Unfortunately, Vaughn said, the tasks assigned in most classrooms are much too difficult and

the bridges necessary to bring the information to the student are not built. The distance between task difficulty and student ability is so extreme it is virtually impossible for students to become independent learners.

Principle: Procedural facilitators or strategies assist students in developing a plan of action to guide their learning activities.

Procedural facilitators are tools teachers can use to help students learn. In written expression, for example, planning guides serve as procedural facilitators that may prompt students to think about characters, setting, and purpose and to think about what they are going to write before they begin.

"Probably KU has the most examples of ways in which procedural facilitators can serve as guides for learning," Vaughn said. "And they're highly effective for students."

Procedural facilitators have been especially effective in the area of written expression, Vaughn said. Ten years ago, students with learning disabilities wrote little and had very low expectations for their writing. In the intervening years, however, the performance of students with learning disabilities clearly reflects the benefits of instruction in that area.

"In the field of learning disabilities within the last 10 years, there's little question in my mind that the greatest progress has been made in the area of written

expression," Vaughn said. "One of the things we learned is that when students were able to write, there were unexpected findings about what they knew, what they could do, and how they could do it. It was a nice window into how they thought and their capabilities. It was a place in which they often could shine."

Vaughn noted the relationship between this principle and the principle regarding instruction in lower-level elements of reading and writing.

"I didn't want to leave you with the feeling that *all* you should be doing is these lower-level activities," she said. "At the same time, activities that focus on higher-level cognitive processes also pay off."

Principle: Self-concept improves through different intervention types at different age levels.

Many educators in the United States today reject ideas, practices, and programs out of fear that these will somehow damage students' self-esteem, Vaughn said. Instead of letting this >>>

E-sources on the CRL Web site

- A Learning Strategies workshop for preservice educators scheduled for January has been canceled. See other options and up-to-date schedules on our workshop information page:
<http://www.ku-crl.org/htmlfiles/workshops.html>
- Learn more about one of the Center's newest projects at the new Web site for the Institute for Academic Access:
<http://www.AcademicAccess.org>
- Read two articles focusing on social skills instruction in the SIM Spotlight section of the site:
 - "A supportive learning environment: Creating the invitational classroom with SIM" by Vlacía Campbell and John Jacobs
 - "Group Think: The Cooperative Thinking Strategies Series" by Jean Schumaker and Sue Vernon<http://www.ku-crl.org/archives/archives.html>

You will find links to all of these pages on the Center's "table of contents" page:

<http://www.ku-crl.org/htmlfiles/core.html>

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fear drive instructional decisions or attempting to improve students' self-esteem through contrived circumstances, educators need a better understanding of the factors that truly influence self-esteem.

"Self-concept is improved in one and only one fundamental way," she said. "It is through genuine success."

Students' self-esteem goes up, she said, when they see that they are indeed performing better through an objective, documented measure such as progress monitoring or portfolio assessment. This success does not even need to be comparable to other children; it must only be better than their own previous performance.

"The difference between students with learning disabilities who achieve and those who do not is a function of many factors, not the least of which is persistence and the belief that they can," she said.

Parting thoughts

Guidelines for instructional practices

Vaughn summarized her "Big Principles" findings as 10 points to consider when developing or adopting instructional interventions:

1. Is the practice documented? Is it evidence based?
2. Does it benefit more than the target student?
3. Is it intensive? Does it occur often enough, long enough, and with enough intensity to make a difference?
4. Is it adaptable?
5. Is it explicit? Does it show, model, and demonstrate what it is, and does it show what it is not?
6. Does it include interactive dialogue, including child-child and teacher-child? Does it give students opportunities to interact and think about ideas deeply and richly?
7. Does it include the fundamental elements, procedural facilitators, think sheets, and mnemonic devices?
8. Is it feasible?
9. Is it interactive, so students don't spend all of their time sitting, listening, and digesting?
10. Is it fun?

References for Vaughn's keynote address

Sharon Vaughn's "Big Principles" of instruction for students with learning disabilities were

and for the research syntheses Vaughn and her co-authors studied follow.

Further reading

based on a review of several research syntheses representing more than 400 studies. For a more in-depth understanding of Vaughn's work in this area, see "The underlying message in LD intervention research: Findings from research syntheses," by Vaughn, Russell Gersten, and David J. Chard, published in the fall 2000 issue of *Exceptional Children*.

The full citation for the article

- Vaughn, S., Gersten, R., & Chard, D.J. (2000). The underlying message in LD intervention research: Findings from research syntheses. *Exceptional Children*, 67, 99-114.
- Elbaum, B., Vaughn, S., Hughes, M., & Moody, S.W. (1999). Grouping practices and reading outcomes for students with disabilities. *Exceptional Children*, 65, 399-415.
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- Gersten, R., Williams, J., Fuchs, L., & Baker, S. (1998). *Improving reading comprehension for children with disabilities: A review of research* (Final Report: Section 1, U.S. Department of Education Contract HS 921700).
- Swanson, H.L. (in press). Intervention research for adolescents with learning disabilities: A meta-analysis of outcomes related to high-order processing. *Elementary School Journal*.

Introducing...a tasty treat

Activity explores concepts of main ideas & details



Margaret Carmean, a SIM Trainer from Mississippi College in Clinton, Mississippi, developed this activity to introduce the concepts of “main idea” and “details” when teaching the *Paraphrasing Strategy*.

Using the concept of an ice cream sundae, show with manipulatives (cut out parts the students can put together) the completed whole (main idea) and the parts (details).

Use the poem to introduce the parts of the sundae. Present each cut out part as you describe it in the poem. When all of the parts are in place, read the last line of the poem, which defines the structure as a sundae. The main idea is introduced in the first line of the poem but not referred to as a sundae. The main idea is repeated in the last line by the word sundae. This is a type of discovery lesson, although the concepts are taught directly.

Main idea

Sundae

Details

Ice cream

Chocolate syrup

Whipping cream

Nuts

Cherry

A frozen confection, oh so merry,

Especially when topped with a great big cherry.

A bowl of ice cream so rich and sweet

Chocolate syrup, tasty and neat.

Whipping cream so fluffy and white,

Sprinkled nuts make it taste just right.

Oh, what a treat we all will say

When feasting our eyes on this ice cream *sundae*.

Seven-Step Shuffle for Test-Taking Strategy

Pam Leitzell, a SIM Trainer and support teacher from Holland, Michigan, and 25 eighth-grade students in a general education classroom developed a game called the Seven-Step Shuffle while learning the *Test-Taking Strategy*.

Here’s what you will need to play the game the next time you teach this strategy:

1. Determine how many groups of students will play.
2. Type the strategy steps on pieces of paper, using a different color of paper for each

group of students.

3. Cut the paper into strips, with one step on each strip. You should have seven strips of each color.
4. Mix the strips up and place seven strips in large envelopes, one envelope per group. Some envelopes might have duplicates of steps, and each envelope should have strips of all different colors.
5. Give each group an envelope.
6. Give students these directions: “Each group has an en-

velope containing the seven steps to the *Test-Taking Strategy*. Your job is to, as a group, arrange the strips and tape them in order on a piece of notebook paper. But, OOPS! I might have gotten a little sloppy and you might be missing some steps or have extras of others. You need to get the seven steps in order in the same color, so trade with other groups as you need to. Get ready, get set, go!”

Strategram index, Volume 12

Number 1

• *The Framing Routine: Framing the big picture with essential details.* Edwin S. Ellis, University of Alabama, describes this new Content Enhancement Routine.

• Index for *Strategram* Volume 11. See page 8 for a back issue order form.

Number 2

• *A new Starter Strategy: InSPECT: Strategic use of computer-based spellcheckers.* Charlie Hughes and David McNaughton, Penn State University, describe the new *InSPECT Strategy* for use with word-processor spellcheckers.

• **For the Classroom:** *Setting the stage to teach the InSPECT Strategy.* Irma Brasseur, KU-CRL, shares suggestions for teaching the strategy, based on her experiences.

• **For the Classroom:** *Paragraph Diagram modifications.* Wendy Behr, Dover, Pennsylvania, suggests modifying the diagram to include spaces for the topic and clincher sentences.

• **For the Classroom:** *Combined planners meet student needs.* Sharon Saunders, Burnsville, Minnesota, describes how she blended the Quality Quest Planner with a planner provided by her school.

• *Foundation seeks nominations for youth award.* Announcement from Foundation for Exceptional Children.

Number 3

• *SIM instruction with a tropical flair: Island-hopping teacher helps missionary students & families.* Julie Tollefson, KU-

CRL, and Celeste Corey, Singapore, explore Celeste's work with missionary families in Southeast Asia and Oceania.

• *SIM training in 2000.* List of workshops planned for year.

• **For the Classroom:** *A sweet activity for practicing DISSECT* from Karen Koskovich, Maquoketa, Iowa.

• **For the Classroom:** *Word Identification cue card for high school students* from Sue Woodruff, Muskegon, Michigan.

• **For the Classroom:** *Presentation ideas for Self-Questioning* from Marg Stewart and Sonya Kunkel, Connecticut.

Number 4

• *A supportive learning environment: Creating the invitational classroom with SIM.* Vlacia Z. Campbell and John Jacobs, Berks County, Pennsylvania, share their experiences blending the *SCORE Skills* with an educational theory called Invitational Education.

• *Group think.* Jean Schumaker, KU-CRL, and Sue Vernon, Edge Enterprises, describe the Cooperative Thinking Strategies Series.

• *CEC seeks success stories.* Announcement from Council for Exceptional Children.

Number 5

• *Raise questions about Content Enhancement Routine.* Sherrel Lee Haight, Central Michigan University, describes an analysis of teacher-student verbal interactions.

• *SIM teachers honored for outstanding work.* Mary Etta Taylor of Heath Springs, South Carolina, and Kathy Boyle-Gast of Athens, Georgia, receive honors.

• **For the Classroom:** *Say it in*

your own words: Tips for teaching paraphrasing by Gwen C. Berry, KU-CRL.

Number 6

• *Combating the "coverage" mentality: Using SIM to relieve classroom pressures,* by Julie Tollefson and Don Deshler, KU-CRL. Don positions the Strategic Instruction Model as an effective approach to handling classroom stress while moving away from the coverage mentality and toward a learning-centered approach. Also: *Big picture: A creative start* describes how one teacher uses the *Course Organizer Routine* to communicate that she cares about students.

• **For the Classroom:** *New manuals: Strategic Tutoring, Talking Together.*

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