The University of Kansas
Center for Research on Learning

The Strategic Instruction Model
Searching, Solving, Soaring. . . . .

Slide Deck and Sequence

This is a list of the slides for the Strategic Instruction Model. We encourage you to be creative in your use of these slides. Certainly, the effectiveness of your session will depend on the nature and style of the delivery of this information and the degree to which you personalize the session to match the needs, interests, and background knowledge of participants.

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SIM
Strategic Instruction Model

Toward an understanding of
The Strategic Instructional Model

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10/98 Updated 11/19

The Strategic Instruction Model is an alternative to traditional instructional interventions. The focus of the model is on empowering students to succeed in school and out of school settings. A major goal is to create an instructional environment in which strategic learning and teaching can take place.

This approach emerged primarily from research in cognitive psychology. A variety of researchers, developers, and practitioners in the field of education have developed specific models through which this approach has been operationalized. This overview focuses on some of the basic tenets of this model and how it can be applied to the instruction of low-achieving students.

NOTE: Text information provided here is not to be read aloud, but it is designed to serve as a guide to supplement these slides.

$$B = E \times I$$

Behavior = **E**nvironment x **I**ndividual

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A strategic approach focuses on the behavior of the individual as a result of the interaction between the individual and the environment. This formula depicts such a relationship. In this formula, behavior (B) is defined by Lewin as the result of the interaction between the environment (E) and the individual (I).

Notice that the formula is reversed from the way most formulas are written. The formula depicts the idea that the performance or behavior of the individual in natural environments is the ultimate indicator of success. The environment symbol follows to indicate that the environment or the setting, presents certain demands that the individual must meet.

University of Kansas Center for Research on Learning SIA B1

B = E x I

Behavior = **E**nvironment x **I**ndividual

Effective
Efficient

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University of Kansas Center for Research on learning 2/99 SIA B2

We can evaluate behavior on two dimensions.

First, we ask if the behavior of the individual is effective in meeting the demands of the environment. In other words, does the individual "get the job done?"

Second, we ask if the behavior is efficient in meeting the demands. That is, we want to know if the student can meet the environmental demands in a timely and appropriate manner.

Therefore, it is not good enough to teach students to get the job done, we also want to teach students how to get the job done in the best possible, i.e., most efficient, manner, (i.e., independently, in a timely fashion, flexibly, insightfully, critically, etc.)

We will first focus on the demands and expectations in the settings or environments in which the individual must function

Demands and Expectations In School and Out of School Settings

• Academic
• Social
• Motivational
• Executive

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University of Kansas Center for Research on learning 2/99 SIA C1

The key to understanding how to promote behavior the is both effective and efficient is to identfy and understand the critical demands (i.e., requirements, expectations) of various settings or environments, the "E" part of our equation, Once we understand what is expected of students, we can begin to identify the appropriate types of interventions.

Part of the research emphasis of the University of Kansas Center for Reserach on Learning has been to identify those factors that exist across a variety of school and out-of-school setting sthat define success.

These factors have been organized into four major categories which will be used to organize our thinking about the environment, the individual, and even the strategies approach. These four areas are acedemic, social, motivational, and executive or higher order thinking.

Demands and Expectations In School and Out of School Settings

- Academic
  - Gain information from written materials
  - Gain information from lectures
  - Demonstrate knowledge through tests
  - Express information in writing (correct spelling, short answers, descriptive prose with long sentences

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University of Kansas Center for Research on learning 2/99 SIA C2

The academic demands that students must face are those which you might expect. Students have to read, take notes, take and pass tests, and write.

In the area of written expression, students must provide clear and accurate short answers. When students are asked to write more lengthy responses, the complexity of sentence structure appears to be a significant demand. The most critical demand as far as regular teachers is concerned seems to be spelling. In a study where regular English teachers were asked to rank a set of written essays, they ranked the paper which included many spelling errors as the worst paper. Spelling is a very important demand in the writing area.

(NOTE: If you wish to conduct a more interactive session, ask participants to generate academic demands placed on students prior to displaying this list of Academic Demands.)

(References: KU-CRL Articles #1, 9, 11, 12, & 16)

Demands and Expectations In School and Out of School Settings

- Social
  - Follow rules and instructions
  - Participate in social activities
  - Participate in discussions and conversations with peers and adults
  - Accept criticism and help
  - Recruit assistance when needed
  - Resist inappropriate peer pressure
  - Be pleasant across social interactions

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University of Kansas Center for Research on learning 2/99 SIA C3

Socially, successful individuals follow rules, participate, and interact appropriately in a variety of social situations in school and our of school in the community, at home, and on the job.

(NOTE: If you wish to conduct a more interactive session, ask participants to generate social demands placed on students prior to displaying this list of Social Demands.)

(References: KU-CRL Articles #1, 6, 9, 10, 11, & 12)

Demands and Expectations In School and Out of School Settings

- ## Motivation
  - Plan for timely task completion
  - Demonstrate a proactive approach to life
  - Set short, intermediate, and long-term goals
  - Put forth maximum and appropriate effort to achieve goals
  - Complete educational programs

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How teachers and other authority figures assess motivation is also important.

A proactive approach to life means that we expect students to learn form their mistakes, not let mistakes overwhelm them, set goals and work towards them, and use this information to promote future success.

(NOTE: If you wish to conduct a more interactive session, ask participants to generate academic demands placed on students prior to displaying this list of Motivational Demands.)

Demands and Expectations In School and Out of School Settings

- ## Executive Processes
  - Work independently with little feedback
  - Apply knowledge across content areas
  - Solve problems
  - Organize information and resources

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The term "Executive" is often used synonymously with the term "metacognitive," which means an individual's ability to reflect and think about his or her thinking processes and to make decision about their use.

We can see that "executive" demands are closely related to the idea that students should be able to independently solve problems across situations based on prior learning.

(NOTE: If you wish to conduct a more interactive session, ask participants to generate social demands placed on students prior to displaying this list of Executive Demands.)

(References: KU-CRL Articles #1, 9, 11, & 12; Research Reports #8, & 22)

Demands and Expectations In School and Out of School Settings

- **Academically,** students must gain information from books and lectures and demonstrate this information in writing and on tests.
- **Socially,** students must follow rules and interact appropriately with peers and adults.
- **Motivationally,** students must set, plan for, and carryout short and long-term goals.
- **Executively,** students must independently solve problems and generalize learning across situations.

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In general, there appears to be a clear set of demands that students must face which need to be considered in developing and implementing interventions that will promote student success.

[NOTE: At this point, to facilitate the transition to discussion of characteristics of low-achieving students, you might display SIA B2 again. Indicate that you have finished discussing the "Environment" portion of the equation and will now turn you attention to the "Individual" (circle the "I" in the equation)]

Characteristics of Low Achievers

- Academic
- Social
- Motivationally
- Executively

SIM

However, on the flip side, we also need to examine the student characteristics which are manifested across these same four areas. Ultimately, the mismatch between the demands of the setting and the characteristics of the individual, if one exists, will determine the most appropriate type of intervention which will bring about effective and efficient behavior.

Characteristics of Low Achievers

- **Academically**
  - Reach an early achievement plateau
  - Do not use effective or efficient study routines
  - Have difficulty completing assignments
  - Have difficulty distinguishing the important from the unimportant
  - Do not organize information appropriately for study

SIM

In the academic area, the low-achieving student appears to plateau at about a 4th to 5th grade level in reading and writing, and at a 6th grade level in math.

Simultaneously, we also see the student having difficulty attacking and completing tasks and organizing information for learning.

(NOTE: If you wish to conduct a more interactive session, ask participants to generate academic demands placed on students prior to displaying this list of Academic Characteristics.)

(References:

Characteristics of Low Achievers

- Socially
    - Scored the same as juvenile delinquents on a test of social skills.
    - Do not participate in discussions
    - Often demonstrate rule-breaking behavior
    - Are less active in school and out-of-school activities
    - Do no recognize opportunities for social skill use

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Characteristics of Low Achievers

- Motivationally
    - Do not see the relationship between appropriate effort and success
    - Often do not see the benefits of staying in school
    - Have difficulty making a commitment to learn or perform
    - Have few goals or plans for the future
    - Have trouble setting and attaining goals

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Characteristics of Low Achievers

- Executively
    - Often do not invent appropriate strategies to complete tasks
    - Have difficulty learning how to solve problems
    - Often do not generalize
    - Often fail to take advantage of prior knowledge when facing new problems

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Demands and Expectations In School and Out of School Settings

- **Academically,** students must gain information from books and lectures and demonstrate this information in writing and on tests.
- **Socially**, students must follow rules and interact appropriately with peers and adults.
- **Motivationally**, students must set, plan for, and carryout short and long-term goals.
- **Executively**, students must independently solve problems and generalize learning across situations.

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The major demands and expectations placed on adolescents in school and out-of-school are summarized here. The academic demands that students must face are what you might expect. Students have to read, listen and take notes, take and pass tests, and write.

Socially, individuals must follow rules, participate, and interact appropriately in a variety of social situations.

Motivation is often inferred by how will individuals respond to demands that require them to complete tasks, set and work toward goals, and expend appropriate levels of effort to complete tasks and reach goals.

The term "executive functioning" is often used synonymously with the term metacognitive functioning, which means an individual's ability to reflect and think about his or her thinking processes and to make decisions about their use. "Executive functioning" demands are closely related to the idea that students should be able to independently solve problems across situations based on prior learning, i.e., generalize their use of skills and strategies to a variety of situations, monitor their use of these skills and strategies, and evaluate this use.

In general, there appears to be a clear set of demands hat students must face that need to be considered in developing and implementing interventions that will promote student success.

Characteristics of Low Achievers

- **Academically,** low achievers plateau in basic skill areas and have difficulty studying, completing assignments, and organizing information.
- **Socially,** low achievers have difficulty interacting with peers and adults and are likely to engage in rule-breaking behavior.
- **Motivationally,** low achievers do not see the benefits of their efforts and have difficulty setting and attaining goals.
- **Executively,** low achievers often do not gereralize new learning and have difficulty with the problem solving process.

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However, on the flip side, we also need to examine student characteristics that are manifested across these same four categories of demands. Ultimately, the mismatch between the demands of the setting and the characteristics of the individual will determine the most appropriate type of intervention which will bring about efficient and effective behavior. (NOTE: LA stands for low-achieving or low achievers.)

In academic areas, LA students appear to plateau at 4th to 5th grade level in reading and writing and at 6th grade in math when they are in the 10th, 11th, and 12th grades. In addition, LA's have difficulty attacking and completing tasks and organizing information for learning.
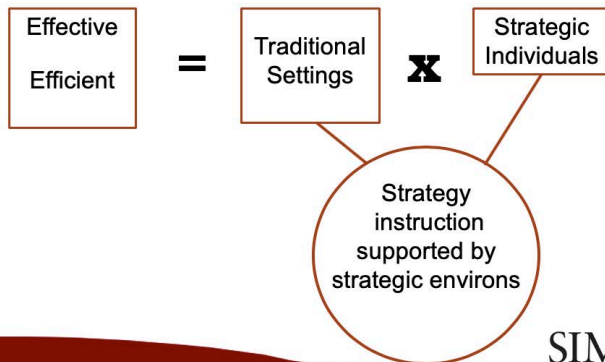
In the social realm, many LA's have difficulties. Often they do not use appropriate social skills, and when they do know them, they may not identify opportunities to use them to their social advantage.

LA students who have learned new skills often fail to attribute their successes to use of these skills. In effect, they do not see the relationship between learning and success or the importance of establishing goals.

n higher-order thinking, LA's have difficulty transferring or generalizing learning to new situations and tasks, and hey frequently fail to use their knowledge,, resources, and experience to solve problems or learn new tasks.

B = E x I
Behavior = Environment x Individual

| Effective Efficient | = | Traditional Settings | x | Strategic Individuals |

Strategy instruction supported by strategic environs

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We characterize an individual's behavior as the result of the interaction between the demands of the environment (E) and the characteristics of the individual (I). The goal of SIM is to make individuals more strategic in their approach to tasks and to create an environment that prompts strategic performance which results in student success. That means that students are effective and efficient in meeting task demands.

The Strategic Instruction Model

• **A Strategic Curriculum**
related to meeting the demands that students must face in and out of school

• **Strategic Instructional Procedures**
to promote strategy and content acquisition and generalization

• **A Strategic Environment**
to facilitate and enhance strategic learning performance

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SIM is composed of three major components --what will be taught, how it will be taught, and how the environment will be arranged. When these three key elements are addressed in a systematic and thorough manner, the learning and performance of low achievers improve.

We've been talking about the Strategic Instruction Model and being strategic. Let's focus for a moment on the definition of the "strategy" as we will be using it.

A Strategy

- An individual's approach to a task
- Includes how a person thinks and acts
- Focuses on a performance continuum
- Concentrates on results of efforts

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Strategic Instruction Model

Although there are numerous definitions of a strategy, we have chosen this one.

First, it is the person's approach to a task. Approach is the key work because the focus is on the individual's skills and knowledge that he or she beings to the situation form the initial encounter with that situation to final completion and evaluation of performance.

Second, it focuses both on how a student thinks and acts. That is, we are concerned with what goes on in the mind and what the person does. Therefore, we are talking about two types of behavior: cognitive behavior and overt behavior.

Third, a strategy focuses on a continuum of performance that includes components related to what happens before, during, and after the tasks.

Fourth, a strategy includes not only an examination of performance, but also an examination of what happens as a result of performance. This last aspect relates to our ability to see the relationship between effort and the resulting performance or outcome.

In short, and in a more popular tone, we can say that strategy instruction is instruction in how to learn and perform.

A Strategy

- A strategy can be successful or unsuccessful.
- The most successful strategy is both effective and efficient.

As stated earlier, a strategy is an approach to a task. Many students do use approaches to tasks. However, an approach to a task does not always lead to success.

For example, there are probably as many ways to fail a test as there are ways to pass a test or improve test performance. The goal is to assist the student to learn how to approach the task in a way that leads to success.

We measure success in terms of effectiveness and efficiency. In other words, the strategy must help the individual get the job done and get the job done in a timely and appropriate manner.

Slide 1

Lion
Orange
Fish
Cherry
Chevrolet
Horse
Ford
G M C
Banana
Zebra
Apple
Volkswagon
Lemon
Dodge
Frog

Let's examine our own approach to a task. Here is a list. I want you to memorize this list. Okay, begin (wait 20 seconds).

Stop. How did you go about memorizing this list? (Elicit several approaches from the audience.) Most people seem to find it easiest to cluster the items into categories.

Probably all the approaches you tried could be considered effective memorization strategies. However, some might not have been as efficient as others. Probably the least efficient strategy for this task with 15 words is simple rehearsal. Wouldn't many LA students try this approach first?

If you reduce the list to be memorized to only 4 items (cover the rest of the list), which strategy is probably best? (Elicit suggestions) Simple rehearsal is probably the strategy of choice for most people when the list is shorter.

So, the task or the demands can determine which strategy is most effective and most efficient.

Slide 2

Effective

Greg and Lynn both studied the names of the presidents and got an "A" on the test.

David and Cory both studied the names of the presidents and got a "D" on the test.

Look at these two examples. Which of the two sets of students were most effective?

Right, Greg and Lynn both got the job done.

The Strategic Instruction Model

Efficient

Greg spent 4 hours memorizing the names of the presidents. His brother helped him memorize the list.

Lynn spent 1 hour memorizing the names of the presidents. She studied by herself.

SIM

Now, let's look at how they studied.

Looking at just Greg and Lynn, who was the most efficient?

Right, Lynn was faster, and she was able to do it by herself.

Which one <u>might</u> run into problems later on in school? Why?

Right, Greg might have difficulty keeping up with the demands of his courses because of his inefficient study strategies, and he might be lost if he could not locate someone as helpful as his brother.

Being Strategic

- What is strategic application of skills and knowledge?
- What is strategic organization and delivery of content?

SIM

Another important question is how do strategies relate to skills and knowledge.

The Strategic Instruction Model

A strategy is different from
a basic skill or a study skill.

First, there is a difference between a strategy and a basic skill and between a strategy and a study skill.

SIM

A BASIC SKILL or a STUDY SKILL

…usually consists of a set of steps or a PROCEDURE related to meeting a specific demand. For example:

- Show me the long division procedure for 234234 ÷ 13 = _____
- What are the steps in making an outline?
- Change the word "carriage" into the plural form using the rule "add s."
- How would you pronounce the word "cantilever"?
- What are the steps to paraphrasing as you read?

We can think of a skill, a basic skill or a study skill, as a procedure.

Notice in these examples how we can identify the procedure that needs to be employed and that each procedure leads to a very specific outcome.

(NOTE: Check the first example to make certain that the symbol in the equation is a division symbol.)

SIM

The Strategic Instruction Model

A STRATEGY….

…consists of critical guidelines and rules related to selecting the best procedure and how to make decision about its use. For example:

• When do you know an outline will be useful?
• How do you make decisions about the importance of information during outlining?
• How do you plan, monitor, and make decisions about what you write?
• When do you paraphrase and how do you decide what to paraphrase?
• What should you do when you can't pronounce a word you need to read?

On the other hand, a strategy relies on some type of skill knowledge.
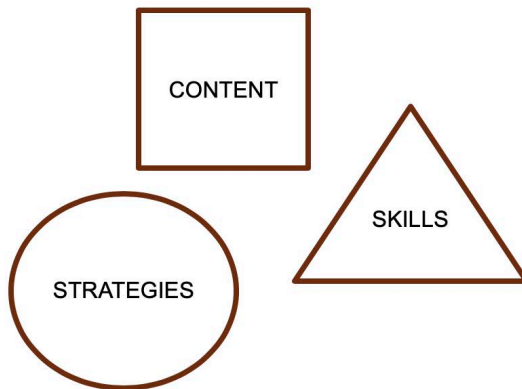
The focus of the strategy is on the appropriate selection and use of skills and procedures as well as on what to think.

Notice how these examples focus on more than just the application of skills.

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One way we can use these definitions is to consider the relationships among them. We can think of learning as consisting of and requiring three types of knowledge.

The square represents background knowledge or what kids know or need to know. For example, a student might have some knowledge about various animals and their characteristics which he brings to his biology class where he is currently learning about reptiles. He needs to know new information about reptiles for an upcoming test.

The triangle represents procedural knowledge or the skills the kids know or need to know. The biology student mentioned earlier knows how to distinguish main ideas and details when reading.

The circle represents strategies or the knowledge of how to select and use skills to acquire content. Our biology student knows how to paraphrase content as he reads which allows him to apply his skills related to distinguishing main ideas and details to learn the new content related to reptiles.

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The Strategic Instruction Model
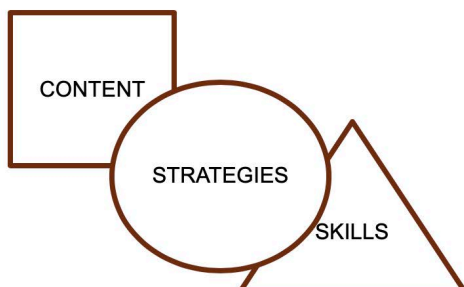
This relationship can be illustrated in this manner.

Here, the nature of the content defines the type of skills that are needed.

Strategies form the bridge between content and skills with the knowledge of the appropriate approach for integrating content and skills.
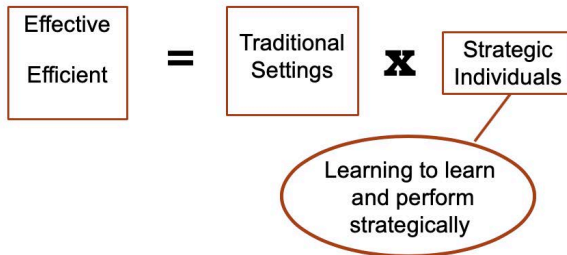
General Strategy Characteristics

- A general approach to solving a set of problems
- Promotes goal-directed behavior
- Informs how to select appropriate procedures
- Guides how to implement a procedure
- Informs how to monitor progress
- Can be controlled
- Provides and focuses on cues to take action

The Strategic Instruction Model

B = E x I

Behavior = Environment x Individual

Becoming

| Effective | | Traditional | | Strategic |
| Efficient | **=** | Settings | **X** | Individuals |

Learning to learn
and perform
strategically

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Again, looking at the formula, the goal of the strategies instructional approach is to teach students how to become strategic.

This, in turn, assists the students in becoming more effective and efficient in meeting many of the demands of the settings and environments in which they are expected to perform.

Strategic Content Delivery

…consists of creating an environment that includes

Enhancements

of how information is presented, guided, directed and prompted that promote and model strategic acquisition, storage, and expression of information in both the support class and the mainstream class.

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So far, we have examined the SIA in terms of the strategies that we want to teach students.

Now, we want to examine how the SIA guides how we can present or deliver content in an effective and efficient manner.

The Strategic Instruction Model

Enhancements

Examples:

- Those are the five parts of speech. Let's see if we can find a good way to remember them…
- Assimilation is an important concept. Let me tell you a story about assimilation. This story is about a student I had a few years ago in another school…
- Before we begin, let's start with an advance organizer. We're going to be learning about defensive play in basketball. What did we cover yesterday in basketball play?...
- Please look at the next section of the text. This section of the chapter is not veriy clear. There are 3 important ideas that you need to learn about as you read this section. The first idea is…..

SIM
Strategic Instruction Model
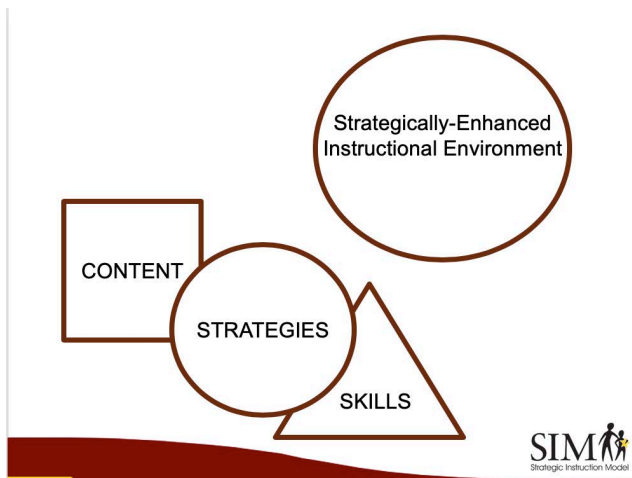
Therefore, our task is two-fold.

First, we want to teach students strategies that will enable them to apply skills to effectively and efficiently meet content learning demands (point to the square, circle, and triangle).

Second, we want to create an environment across the school setting that will facilitate strategy acquisition and generalization and compensate for poor strategy knowledge when strategies have not been mastered (point to the oval).
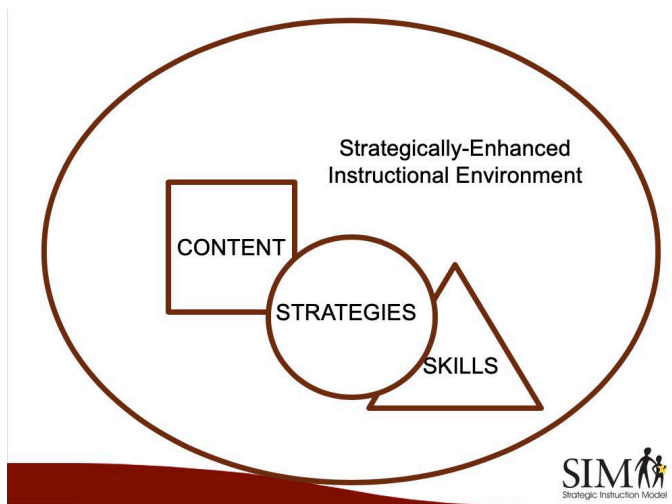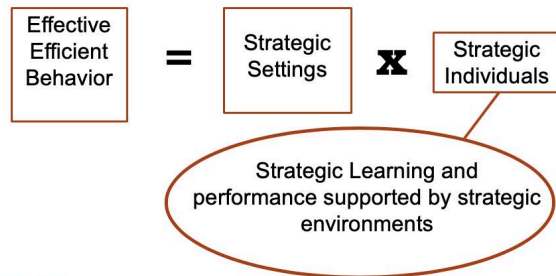

Therefore, the Strategic Instruction Model involves more than a set of strategies. It involves what we teach, how we teach it, and how we organize the environment.

The Strategic Instruction Model

B = E x I

Behavior = Environment x Individual

| Effective Efficient Behavior | = | Strategic Settings | X | Strategic Individuals |

Strategic Learning and performance supported by strategic environments

SIM
Strategic Instruction Model

Not until we address both the environment and the individual do we begin to see behavior that is both effective and efficient.

Goal of SIM

To promote the development of individuals who can:

– learn and perform independently

– exhibit appropriate social and personal skills

– earn standard high school diplomas

– make successful transitions to post high school settings

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Ultimately, the success of our efforts must be measured against these four goals. Undoubtedly, these are the same goals that we hold for all students.

The Strategies Instruction Model

Three questions

- What are the key elements of a program incorporating SIM?
- How can strategic instruction help low achievers?
- What should be expected of efforts to implement SIM?

SIM Strategic Instruction Model

To attain these goals, we need to translate the Strategic Instruction Model into components that will directly assist teachers in the implementation of this approach.

To do so, we need to address these three questions.

First, we will look at the key elements of Strategic Instruction Model which must be incorporated into a program.

Key Elements

- A Strategic Curriculum related to demands that the student faces
- An Instructional System for strategy and content acquisition
- A Strategic Environment to facilitate and enhance strategic learning.

SIM Strategic Instruction Model

There are three key elements that need to be addressed in the implementation of the Strategies Instructional Approach--what will be taught, how it will be taught, and how the environment will be arranged.

When these three key elements are addressed in a systematic and thorough manner, the learning and performance of low achievers improves.
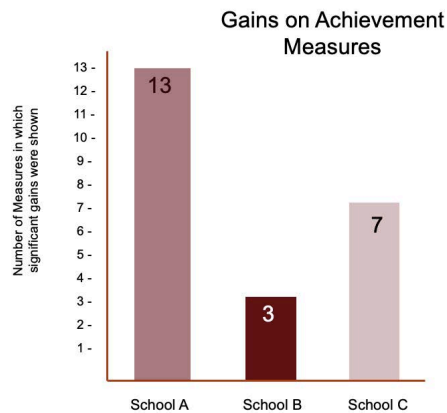
The Strategic Instruction Model

How can strategic instruction help low achievers?

- ACADEMICALLY, students learn and perform independently
- SOCIALLY, students deal positively in interactions with others
- Students exhibit a higher level of MOTIVATION and are goal directed in planning and completing tasks
- EXECUTIVELY, students select the best approach to a task

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Strategic Instruction Model

University of Kansas Institute for Research in Learning Disabilities, 1993

SIA 1.1

Next, we need to address the benefits of strategy instruction. Specifically, low achievers become more successful in the areas in which specific strategy instruction has been provided. Providing instruction in strategies across the academic, social, motivation, and executive areas will result in progress in all areas.

The Strategic Instruction Model

Gains on Achievement Measures

Number of Measures in which significant gains were shown

School	Value
School A	13
School B	3
School C	7

SIM Strategic Instruction Model

For example, this graph illustrates the changes between pretest and posttest measures for school A in which the Learning Strategies Curriculum was implemented compared to schools B and C which did not have a strategies-oriented program. Students in the strategies-oriented school (A) demonstrated significant gains on all 13 achievement measures. These measures included achieve-ment tests, notetaking measures, grade point average, etc.

The programs in schools B and C were primarily tutorial and remedial in nature, and the students made gains in fewer areas.

(NOTE: Additional, specific data may be included here if desired.)

However, these types of gains do not occur overnight. In order for these gains to be realized, the teacher needs to create an environment in which strategic learning and performance can occur.

In orde:r to examine the efforts needed to implement this approach. let's look first at the situation which will lead to achievement of the results jasst mentioned.

What does SIM implementation look like?

SIM Strategic Instruction Model

The Strategic Instruction Model

The Picture

- Students actively participate.
- Learning driven by student goals and plans.
- Instruction revolves around demands of mainstream classes.
- Students monitor own progress.
- Support teachers model strategic learning and provide informative feedback.
- Learning is Interactive and reciprocal.
- All teachers prompt strategic learning.

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If we walked into a strategic classroom we would see these activities--teachers and students learning together, students actively participating in the learning process, instruction which is relevant to demands faced by students, and teachers promoting strategic learning.

What will it take to accomplish this?

Conditions

- Procedures for strategic instruction must be learned and practiced.
- Evaluation of student performance and provision of feedback must be done DAILY.
- Emphasis of the support class must be to teach students HOW to learn and perform.
- The environment must promote strategic learning.
- At least 6 to 8 weeks of instruction per strategy must be allowed.
- Professional learning, coaching, and implementation will require change over several years.

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Here are some conditions that need to be met in order for strategies instruction to be successful.

It is clear that the development of an effective strategies program is not an "event."

It is a process that takes time and the commitment of individuals who believe in teaching students to be effective, efficient, and independent learners. It often requires that the orientation of the support class change and that teacher and student behavior change over time.

The Strategic Instruction Model

ACHIEVEMENT PERFORMANCE ACROSS THE GRADES ON THE WOODCOCK-JOHNSON PSYCHOEDUCATIONAL BATTERY

GRADE EQUIVALEMT CLUSTER SCORES

GRADE IN SCHOOL

Reading Cluster Score
Math Cluster Score
Writing Cluster Score
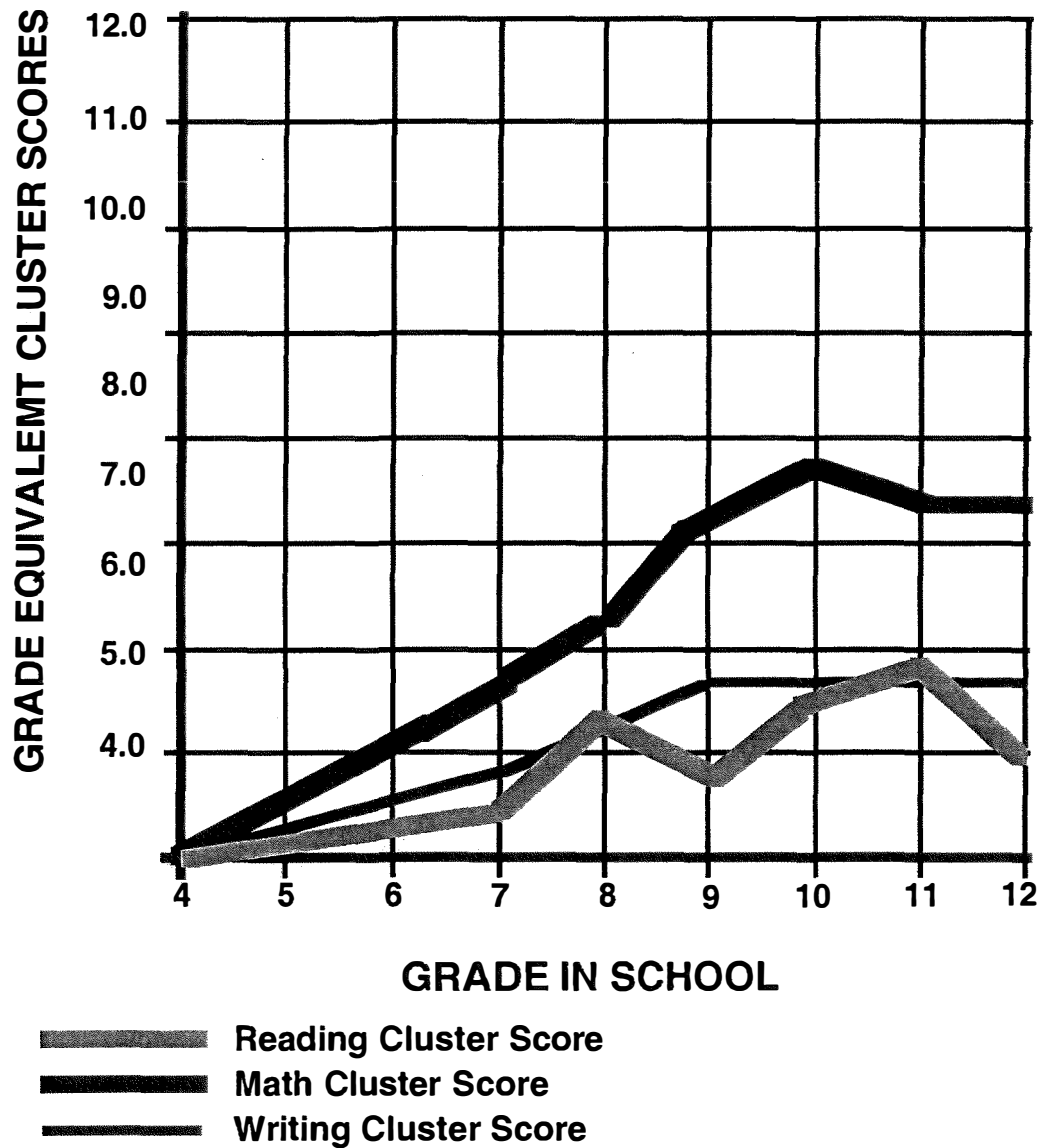
MEAN GRADE EQUIVALENT SCORES ON THE WOODCOCK-JOHNSON PSYCHOEDUCATIONAL BATTERY

	READING CLUSTER	MATH CLUSTER	WRITING CLUSTER
7	3.3 LD*	5.2 LD	3.7 LD
	4.4 LA**	6.0 LA	5.1 LA
8	4.2 LD	5.5 LD	4.2 LD
	4.4 LA	6.5 LA	4.7 LA
9	3.9 LD	6.3 LD	4.7 LD
	5.6 LA	6.7 LA	5.6 LA
10	4.6 LD	6.9 LD	4.7 LD
	6.6 LA	8.3 LA	7.0 LA
11	4.8 LD	6.5 LD	4.7 LD
	6.6 LA	7.6 LA	6.8 LA
12	4.1 LD	6.4 LD	4.8 LD
	6.6 LA	7.8 LD	6.7 LA

N = 424 (24-41 in each group at each grade level)
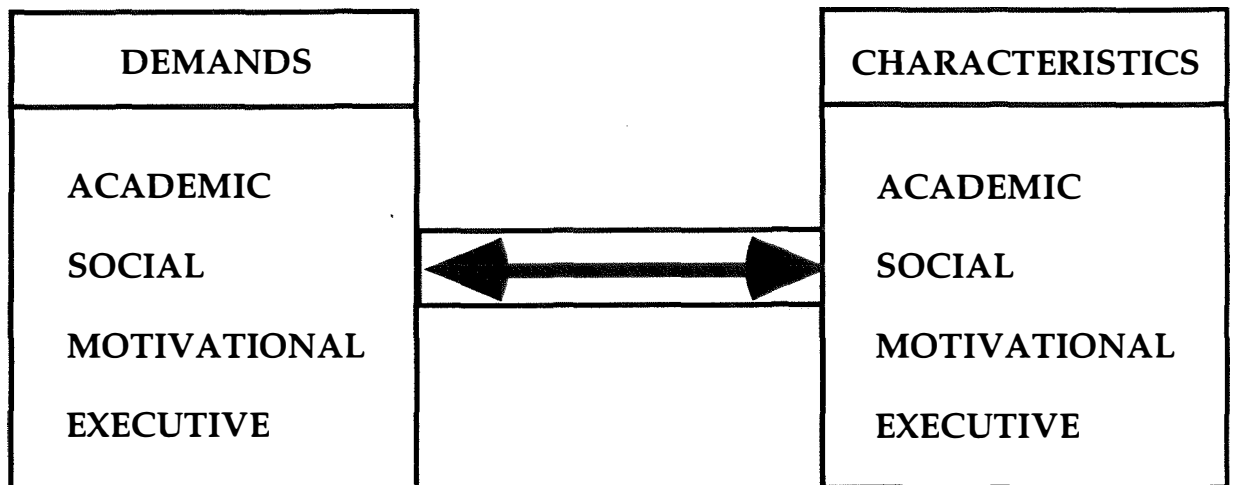
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* LD: Learning Disabled
** LA: Low Achieving

E   x   I

Environment   X   Individual

DEMANDS		CHARACTERISTICS
ACADEMIC		ACADEMIC
SOCIAL	⬌	SOCIAL
MOTIVATIONAL		MOTIVATIONAL
EXECUTIVE		EXECUTIVE

$$B = E \times I$$

Behavior = Environment x Individual

| Ineffective Inefficient | = | Traditional Settings | X | Nonstrategic Individuals |

TRADITIONAL INTERVENTION APPROACHES

SKILLS-ORIENTED APPROACHES

Basic Skills Remediation Approach

Study Skills Approach

CONTENT-ORIENTED APPROACHES

Tutorial Approach

Content-equivalent Approach

BASIC SKILLS REMEDIATION APPROACH

- **O** Remedial instruction of academic skills such as reading and math
- **O** Remediation of skills corresponding to the student's achievement levels
- **O** Goal of sequentially improving student's skills

Advantages	Disadvantages

STUDY SKILLS APPROACH

- O Brief instruction in procedures such as taking notes, using a textbook, studying for a test, etc.
- O Characterized by instruction in one general set of steps that are to be applied across all settings
- O Focus on general academic demands

Advantages	Disadvantages

TUTORIAL APPROACH

O **Short-term assistance in content areas in which the student is experiencing difficulty or failure**

O **Teacher's major responsibility is to keep the student current in the regular**

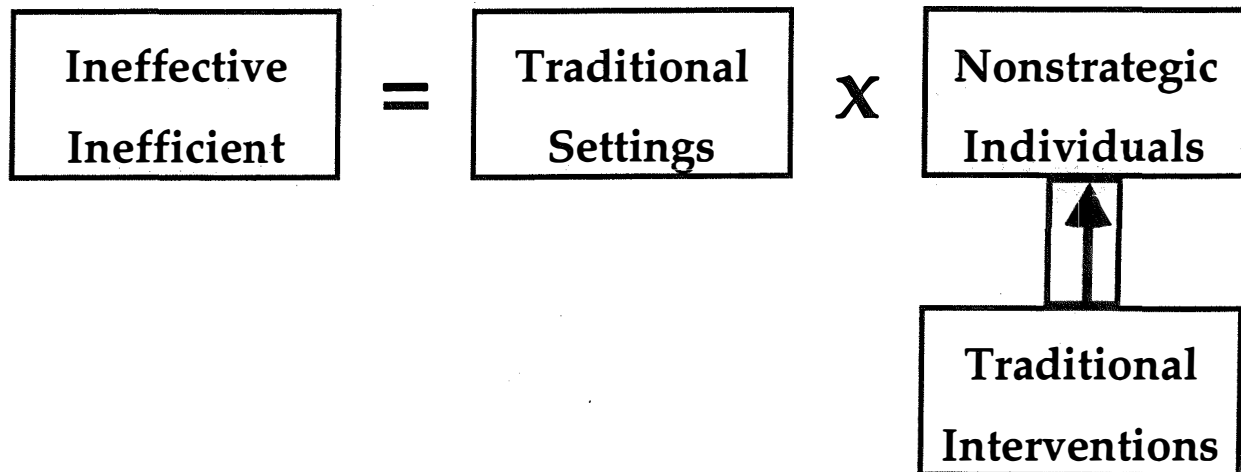| Advantages	Disadvantages

CONTENT EQUIVALENT APPROACH

○ **Total delivery of content in a way that accounts for students' lack of basic skills or study skills**

○ **Includes audiotaping of materials, use of modified textbooks, use of expanded study guides and content outlines, alternate tests, modified pacing, extended courses, etc.**

Advantages	Disadvantages

$$B \quad = \quad E \quad x \quad I$$

Behavior $\quad = \quad$ Environment $\quad$ x $\quad$ Individual

| Ineffective Inefficient | = | Traditional Settings | X | Nonstrategic Individuals |

↑

| Traditional Interventions |

$$B = E \times I$$

Behavior = Environment x Individual

| Effective Efficient | = | Traditional Settings | X | Strategic Individuals |

Learning to learn and perform strategically.