Book Study
Prepared by the
Kansas Multi-Tier System of Supports (MTSS) Project

Classroom Instruction That Works: Research-Based Strategies For Increasing Student Achievement

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(Association of Supervision and Curriculum Development, 2001)

Book Description:

Classroom Instruction That Works **answers many questions about what works in education. This book examines decades of research findings to condense the results into nine strategies that have positive effects on learning. The authors provide the statistical effect sizes and show how those translate into percentile gains for students. The book makes this easy to understand and shows the impact of each strategy on student achievement. There are examples of successful instruction that allow for teachers to plan and implement the strategies in their own classrooms.**

Target Audience:

This is an excellent book study for K-12 Tier 1 teachers because the focus is on quality instruction and what this actually looks like. We know the biggest "bang for our buck" comes from excellent Tier 1 curriculum and instruction.

Chapter 1: Applying the Research on Instruction: An Idea Whose Time Has Come

Overview:

The art of teaching is rapidly becoming the science of teaching. Since the 1970s, we have been able to look at effective instruction and the difference it makes with student achievement. Research has shown that the average student who attends a "good school" will have a score that is 23 percentile points higher than an average student who attends a poor school. The second part to the research is looking at the effects an individual teacher has on student achievement. The chapter explains a research technique referred to as meta-analysis. Instructional strategies are identified that have a high probability of enhancing student achievement.

Helpful Hints:

The book is set up with the same format within each chapter. First, the research and theory is summarized. Next, the information is discussed within the context of classroom practice. Finally, examples are presented that describe explicit instructional strategies. This will be helpful in knowing how to arrange your discussion throughout the book. It is important for the participants to understand the research and generalizations to provide a strong basis to analyze the instructional strategies.

Discussion Questions:

1. What are the things that you feel affect student achievement?

2. Do we have strategies already in place that increase student achievement? If so, what are those?

3. Given our current school improvement plan, what role do you see instructional strategies playing the most significant part of?

4. Reflect on your understanding of meta-analysis as used in research study.

Chapter 2: Identifying Similarities and Differences

Overview:
Identifying similarities and differences are mental operations that are basic to human thought. Researchers have considered these instructional strategies as the "core of all learning." There are four ways to instruct identification of similarities and differences. These include comparing, classifying, creating metaphors and creating analogies. All of these tasks can be teacher directed or student directed. Presenting students with explicit guidance in identifying similarities and differences enhances their understanding and ability to use knowledge.

Helpful Hints:
It will be helpful to identify various ways that each strategy can be used within the classroom. Discuss how each form of identifying similarities and differences can be modeled for students at various grade levels. Identifying various graphic organizers to use within each form would also be beneficial.

Discussion Questions:
1. What is the purpose of asking students to compare?

2. Does our core curriculum provide multiple opportunities for students to compare beyond the surface level?

3. How will I teach students the process of comparing?

4. What kinds of graphic organizers do we use for comparison?

5. What is the purpose of asking students to classify?

6. What kinds of activities do we provide in Tier 1 instruction that help students to classify?

7. How can we use rubrics to assess students learning in these areas?

8. How will I teach the process of classifying?

9. What will I do to help students who are not classifying effectively?

10. What is the purpose of asking students to create metaphors?

11. Where does our current reading curriculum make use of metaphors?

12. How can we provide a scaffold on which students can build their understanding and use of metaphors?

13. What is the purpose of asking students to create analogies?

14. Discuss where you feel analogies can be better utilized in our core curriculum.

15. How will we monitor students' understanding of identifying similarities and differences?

16. How can we summarize the results of the research on identifying similarities and differences?

17. Reflect on your understanding of using similarities and differences effectively in classroom instruction.

Chapter 3: Summarizing and Note Taking

Overview:

Summarizing and note taking require many metal processes. In order to summarize information learners must decide which parts are important, which parts can be deleted and which parts need to be reorganized. Similarly, note taking also requires learners to synthesize material, organize concepts, topics and details. It is a very complex process. Research tells us that understanding the explicit structure of information enhances students' learning.

Helpful Hints:

It will be important to discuss the strategy of using a think aloud procedure to enhance student learning. Be sure that everyone has a solid understanding of what a good think aloud should contain.

Discussion Questions:

1. What does summarizing help my students do?

2. In what situations does our core curriculum allow our students to summarize?

3. Currently what do we do to help students understand and use the process of summarizing?

4. How does using the strategy of thinking aloud help our students learn to summarize information?

5. What is the purpose of taking notes?

6. The research on note taking discusses using a variety of note-taking formats is most helpful. Reflect on the formats that you use in your classroom.

7. How do we assess student's level of understanding with summarizing and note-taking?

8. Discuss the importance of using reciprocal teaching as a strategy.

9. How do we currently adapt instruction in "study skills" for our struggling learners?   Is it effective?

Chapter 4: Reinforcing Effort and Providing Recognition

Overview:
This chapter addresses students' attitudes and beliefs rather than strategies to enhance cognitive skills. These two activities focus on student motivation. Research has shown that motivation plays a critical role in the learning process. Teaching students that extra effort pays off in terms of achievement actually increases student achievement. Research has also shown that recognition is more powerful than tangible rewards.

Helpful Hints:
This might be a good time for staff to take some time to reflect on current practices and beliefs about reinforcing effort and providing recognition. It may be an opportunity to decide some common practices that can be used school wide.

Discussion Questions:
1. What does providing recognition mean to you?

2. What do we currently do in the classrooms to provide recognition? What do we do for school wide recognition?

3. How do we explain and exemplify the "effort belief" to students?

4. How do we make students see the connection between effort and achievement?

5. What can we do to make sure we are providing recognition systematically?

6. What makes providing effort effective or ineffective?

7. How do we currently monitor or measure the impact that recognition and praise have on student impact?

8. How do you feel about intrinsic rewards vs. extrinsic rewards?

9. Describe the "Pause, Prompt and Praise" strategy. Why do you think this technique makes effective use of praise?

Chapter 5: Homework and Practice

Overview:
Homework and practice is a way for teachers to extend the school day so students are continuing the learning process. It provides a way for students to deepen their understanding of concepts and allows time to practice skills so they can use them effectively. Research tells us that more homework needs to be provided for older students, parent involvement in the homework should be kept to a minimum and that the purpose of the homework should be shared with the students. Practice is necessary to take skills to a mastery level. Teachers can use the research on homework and practice to increase student achievement.

Helpful Hints:
The information in this chapter can lead to facilitating discussions about the current practices and beliefs about homework. It may be a topic that could lead to an emotional debate for some teachers. It will be important to keep the research in the forefront of the discussion.

Discussion Questions:
1. What is our current homework policy? Have we communicated the policy to students and the parents?

2. What are the purposes of homework?

3. What kind of homework do you assign? Describe a typical homework assignment you give to your students.

4. What does the research tell us about commenting on homework?

5. What makes homework effective?

6. What kind of tools do we use to facilitate the effective use of homework?

7. Describe the two generalizations drawn from the research on practice.

8. Do we provide ample time for students to practice newly acquired skills?

9. What kind of skills do I ask your students to practice?

10. How do we monitor how well students are doing with a skill or process?

11. What kind of support do we provide for students who do not understand the skill even after ample practice?

Chapter 6: Nonlinguistic Representations

Overview:
Nonlinguistic representations, referred to as the imagery form, is a way to gain knowledge through mental pictures or physical sensations, such as smell, taste, touch, kinesthetic association and sound. Representing knowledge in this way increases student achievement. This chapter discusses a variety of strategies to use with students to represent the knowledge they have gained.

Helpful Hints:
It may helpful to decide on some common graphic organizers to use across the grade levels in your school. Discuss what standards and indicators lend themselves well to using nonlinguistic representations to further the students' understanding.

Discussion Questions:
1. What is the purpose of representing knowledge in different forms?

2. How do using nonlinguistic representations deepen students' understanding?

3. What are the six common patterns of organizing information?

4. How do you use graphic organizers in your classroom?

5. How can nonlinguistic representations help struggling learners?

6. Discuss the classroom examples provided in this chapter. How did these teachers use this strategy effectively?

Chapter 7: Cooperative Learning

Overview:
Cooperative learning has a strong research base to support its use in the classroom. It is proven to be a very effective strategy to increase student performance. Students are organized into heterogeneous groups for learning purposes. This chapter offers strategies and suggestions on how to use cooperative learning.

Helpful Hints:
If your staff has not studied cooperative learning in detail, you may want to use some additional resources to study the topic. Several resources are available that discuss cooperative learning structures in more specific detail.

Discussion Questions:
1. Discuss the five defining elements of cooperative learning.

2. What is the purpose of using cooperative learning in the classroom?

3. Does our core curriculum allow for cooperative learning?

4. How can we adapt the curriculum for increased cooperative learning situations?

5. Share a time that you used cooperative learning and were pleased with the results. Why did it work well?

6. Share a time that you used cooperative learning and were not pleased with the results. What happened that made you feel it was not effective?

7. How do we support students that are not working well in groups?

Chapter 8: Setting Objectives and Providing Feedback

Overview:
Setting objectives and providing feedback give students direction and help them to think about their learning. Research tells us that setting instructional goals narrow students' focus. A powerful way to enhance achievement is by providing feedback. This chapter offers strategies and suggestions for using what research tells us works in the classroom to enhance learning.

Helpful Hints:
Prior to reading this chapter, it may be a good idea for the group to reflect on the current practices and beliefs about providing feedback for students.

Discussion Questions:
1. Discuss the purpose of setting objectives in the classroom.

2. What are the three defining characteristics of effective instructional objectives?

3. How do you currently communicate the learning goals to your students?

4. Have you successfully used student contracts in your classroom? Explain why you thought it worked well.

5. What is the purpose of providing feedback in the classroom?

6. What makes feedback useful to your students?

7. Do we have any opportunity to give corrective feedback during our core instruction?

8. When do you think we have the most opportunities to give feedback?

9. Knowing that the research says that feedback is the single most powerful thing a classroom teacher can do to enhance student achievement, how do we ensure that we are giving effective feedback in a timely manner?

Chapter 9: Generating and Testing Hypotheses

Overview:

Generating hypotheses is a way of applying knowledge. Research has shown that we generate and test hypotheses inductively or deductively. Asking students to explain their hypotheses and conclusions enhances student learning. This chapter discusses strategies and tasks to use that engage students in generating and testing hypotheses.

Helpful Hints:

Many times, we think of using the strategy of testing hypotheses for science instruction. This chapter can allow for discussion of generating hypotheses as a basic cognitive skill that applies to many different subject areas. This may be a difficult concept for teachers to transfer into other curriculum areas. It may be helpful to conduct some brainstorming activities to help solidify the understanding of this concept.

Discussion Questions:

1. Explain the differences between inductive thinking and deductive thinking. What role does each process have in our curriculum?

2. System analysis is a complex process that students will need to learn about and practice. What can we provide for a scaffolding system to help students' understanding of the process?

3. What kinds of activities do we use to help students analyze problems?

4. In reading instruction, what ways do we teach students to problem solve?

5. How important do you feel it is to use familiar content to teach the steps of problem solving? Explain your reasoning.

6. What kind of decision-making activities do you use with your students?

7. How can we adjust the complexity of a historical investigation for our younger students?

8. We often think of using experimental inquiry in science activities. Look at the general framework provided on page 108 and brainstorm other ways we could use this process in reading.

9. Discuss some ways to support students with the process of explaining their thinking as they generate and test hypothesis.

Chapter 10: Cues, Questions, and Advance Organizers

Overview:
Use of prior knowledge can be a powerful learning tool. Cues and questions, along with advance organizers, are strategies that help students to use their prior knowledge to enhance their learning about new content. This chapter offers strategies and suggestions for using what research tells us works in classrooms.

Helpful Hints:
This may be a good opportunity to review the levels of Bloom's Taxonomy and discuss the relationship to this chapter.

Discussion Questions:
1. What is the purpose of using cues and questions in the classroom?

2. What kind of questions do you use with your students?

3. How can we support students that have little background knowledge?

4. Reflect on your use of higher level questioning strategies.

5. Look at the list of sample questions on pages 115-116. Discuss how to incorporate these types of questions into the core curriculum.

6. What kinds of advance organizers do you use with your students?

7. Discuss the four general types of advance organizers.

8. How can we use advance organizers to support our Tier 2/3 learners?

Chapter 11: Teaching Specific Types of Knowledge

Overview:
This chapter utilizes the instructional strategies previously discussed in the book to show how they can be used for specific types of knowledge. Strategies are discussed for four types of knowledge: vocabulary terms and phrases, details, organizing ideas and skills and processes. Teaching is more precise and learning is more efficient when teachers implement these strategies into planning lessons.

Helpful Hints:
This chapter is full of application examples. The material can lead into some lengthy discussions. It may be best to break this chapter into various sections to comprehend the importance of each instructional strategy.

Discussion Questions:
1. What role does vocabulary have in our core curriculum?

2. What are the current strategies that you use to teach vocabulary?

3. Discuss the five-step process for teaching vocabulary. How well do you feel we implement each step?

4. Research tells us that students need to be exposed to words at least six times before they really remember the word. What are we currently doing that supports that research? How do we feel we can increase the number of times students are exposed to words?

5. How can we monitor how well students are doing with vocabulary?

6. What additional support in the area of vocabulary can we give to students who are struggling learners?

7. What details do you currently teach in your classroom?

8. How can we provide multiple exposures to the details?

9. How will we monitor how well students are learning the details?

10. How do we provide ways for our students to apply generalizations and principles?

11. Describe how skills and processes vary.

12. How do you provide an initial model for a skill or process?

13. How can we evaluate if a student is internalizing a skill?

14. How do you provide guided practice with a skill or process?

15. Where does the distributed practice fit into your schedule?

Chapter 12: Using the Nine Categories in Instructional Planning

Overview:
This chapter puts it all together and reviews the nine categories of strategies that have a strong effect on student achievement. It describes three phases of unit planning.   Specifically planning strategies before, during and after a unit raises the quality of planning and teaching. This leads to enhanced student achievement.

Helpful Hints:
It may be helpful to review the elements of lesson design prior to reading this chapter. This chapter can lead to an opportunity for teachers to redesign a unit using the framework that is presented in the book. This could be a grade level or an individual effort.

Discussion Questions:
1. Use the hypothetical example of a unit on weather to discuss how each strategy is used before, during and after the unit.

2. Examine your use of the instructional strategies within these nine categories. Reflect on the effectiveness of your current practices and consider new practices you will try.

3. How will using these nine strategies focus your instruction?

Chapter 13: Afterword

Overview:

This chapter discusses three major efforts that must take place in order for teaching to become more of a science than an art. Research must be synthesized, staff development must reflect the research of effective practices and there must be a commitment to change.

Helpful Hints:

This is a great way to evaluate where you currently are with instruction and identify the next steps that are needed to further the use of effective practices in your school.

Discussion Questions:

1. What additional staff development do you feel is needed in the area of effective practices?

2. Reflect on your commitment and willingness to strengthen your instruction with these strategies.