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Noteworthy Perspectives: Classroom Strategies for Helping At-Risk Students Discussion Guide

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NOTEWORTHY
PERSPECTIVES



Classroom Strategies for Helping At-Risk Students

**Discussion
Guide**

McREL

CLASSROOM STRATEGIES FOR HELPING AT-RISK STUDENTS: DISCUSSION GUIDE

This section is designed to encourage discussion about effective teaching and at-risk students. The contents of this journal are summarized on the following pages to inform discussion, and discussion pages are provided throughout the section to provoke conversation.

General Discussion Questions:

Consider one or more of the strategies presented in this journal. Use the following questions to guide discussion on the use of the strategy or strategies in your attempts to bring your low-performing students up to standards.

1. Have you tried the strategy? If so, what was your experience with it? If not, would you want to now?
2. Is the strategy best suited for math, reading, or some other subject area? Where could it be used most effectively in your curriculum?
3. Do the program examples provided in the strategy chapter seem similar to situations you have experienced in your classroom? What would make your students more or less likely to experience success with the strategy?
4. What are the most important factors in making the strategy effective? Would these factors make the use of the strategy difficult to facilitate in your classroom?
5. Could you imagine using all of these strategies in a school year? A week? A day? What would be the advantages and disadvantages of using a variety of strategies?

Key to Understanding Findings:

Each of the six classroom strategy categories are summarized on the following pages. The summaries include a category description, an indication of the amount of available research used as a basis for claims, and an abbreviated set of findings. Each of the findings is presented under one of the following headings:

“evidenced” — The research supports a claim that observed gains in achievement can be attributed to a given intervention. Consistently large gains increase the confidence of these claims.

“promising” — The body of available research reveals a promising trend. These trends were identified by McREL as directions for further research. They are presented here for practitioner consideration.

“absent” — It is occasionally noteworthy to identify interventions that have not been shown to be effective.

Description The group of studies synthesized under this heading represents a set of whole-class interventions that support either a behaviorist or constructivist instructional approach.

Availability of Research Fifteen studies were included in the whole-class research synthesis. Only four of these were coded by McREL as being high in quality. One of the high quality studies researched a behaviorist intervention while three others researched programs that employed a constructivist approach.

Findings It is important to note that several of the studies in this category were studies of a blended approach — infusing behaviorist approaches into a constructivist design or visa versa. There were studies that drew comparisons between approaches and those that merely made claims about the effectiveness of one approach. It is from this body of work that we draw the following conclusions.

Promising In choosing between a behaviorist and constructivist approach, a practitioner should take the content into consideration. The available research indicates that a behaviorist approach is more likely to support a behavioral outcome while a constructed outcome is most effectively produced by a constructivist approach. For example, direct instruction in vocabulary was found to increase skills in vocabulary, but these learned skills did not generalize to other reading areas.

Absent There is not enough evidence to determine whether one approach — behaviorist or constructivist — is superior to the other, nor does the evidence suggest that such a determination will emerge.

1. The passage on page 9 describes a student coming to understanding of a book by relating it to his own experiences. Have you seen this in your classroom? If so, describe a similar situation. Are there subjects/topics that lend themselves to students frequently constructing their own understandings?
2. The passage on pages 10 and 11 describes a curricular regimen utilized in a reading classroom. What are your experiences with interventions of this sort? What are the advantages and disadvantages of closely following a regimen like the one described?

Cognitively Oriented Instruction

Description Cognitively oriented strategies have been defined by us as any approach that guides teachers in teaching students how best to learn. Such an approach

is designed to help students improve the quality of their thinking and, therefore, support them in all curricular areas. This category includes analyses of both cognitive (“how-to” strategies and procedures) and metacognitive (planning, preparation, idea generation as well as monitoring, self-checking, and revising strategies) instruction.

Availability of Research Fifteen studies were included in the cognitively oriented strategies synthesis. Only five of these were coded by McREL as being high in quality.

Findings The evidence reviewed in this chapter for the effectiveness of cognitively oriented instruction should encourage both the use of this approach for low-achieving students and further research of these cognitive interventions.

Promising In reading instruction, a combination of instruction and practice in planning/preparation and summarizing strategies appears to be effective for low-achievers.

In writing and oral language, instruction in how to start, draft, and revise essays and speeches, combined with peer problem solving and feedback appears to be effective.

In mathematics instruction, a combination of social contexts, peer modeling, meaningful problems to solve, and strategy instruction appears to be effective.

1. The sidebar on page 17 describes reading instruction as a general metacognitive skill. Describe other, more specific cognitive or metacognitive skills that you teach in your classes. (For descriptions of these interventions beyond what is provided above, see the working definitions and examples of cognitive and metacognitive interventions provided on page 16.)
2. The implications in this chapter suggest that reading, writing, and mathematics instruction can be enhanced by cognitive and metacognitive instruction, but that teaching in the subjects should employ different sequences of approaches. Is it clear why this might be the case?

Description The interventions addressed here are those that incorporated different strategies for dividing a classroom into smaller groups of students. The available research revealed heterogeneous and homogenous grouping efforts including multiple subject area instruction, differentiation, and cooperative learning interventions.

Availability of Research Eighteen studies were included in the small group synthesis. Only five of these were coded by McREL as being high in quality.

Findings The recent research suggests that some grouping strategies can have a positive impact on low-achieving students. These findings are encouraging given the increasing diversity faced by today's teachers.

Promising Cooperative learning, when implemented in a rigorous manner, can provide students with enriched instruction through peer interaction. In the best cases, this interaction results in increased student achievement. Appropriate training is integral to successful school-wide implementation of cooperative learning strategies.

Absent There is a lack of available research that would either support or condemn the use of homogenous (ability) grouping. The research that shows positive results lacks the rigor we regard as necessary to present this approach as being one that shows promise.

1. To what extent are small groups an effective part of your teaching? Describe a lesson that exemplifies the importance of small groups.
2. Does the passage on page 23 leave you with the impression that the small-group strategy was effective? How do you think the teacher may have prompted the students before they began their conversation? What characteristics of small-group instruction do you think are essential to its potential effectiveness?

Tutoring

Description Tutoring is defined as a one-on-one interaction between tutor and student. The tutors in the programs studied varied widely, from children to retirees, while in most cases the tutees were young readers. Studies of cross-aged student tutoring interventions were included if it was clear that the tutor was not expected to gain academically from the tutoring interaction.

Availability of Research Twenty-three studies were included in the tutoring synthesis. Only five of these were coded by McREL as being high in quality.

Findings The recent tutoring research suggests that tutoring can be an effective approach in serving at-risk students. The studies of the tutoring synthesis are largely studies of early literacy, and it is from this body of work that we draw the following conclusions.

Evidenced Tutors with virtually every level of education have been used effectively for early literacy education as long as the tutors were provided with appropriate training.

Evidence supports that diagnostic and prescriptive interactions are encouraged in effective tutoring practice.

Promising Effective tutoring sessions are characteristically monitored and adapted with appropriate frequency.

A strong guiding purpose — a theoretical approach or step-by-step program structure — seems to be integral in an effective tutoring program.

Program logistics such as availability of materials, instructional space, and scheduling may have a significant effect on program results.

Finding, training, and retaining quality tutors should be a primary concern.

1. This chapter suggests that tutoring is often limited by the availability of resources. Is a lack of resources specifically limiting the amount of tutoring that occurs in your school? To what extent does your school take advantage of tutoring to help meet the needs of students who are below standards?
2. The passage on page 31 describes a cross-age student tutor who appears to be having a positive effect on a younger at-risk student. Would this strategy help you to reach the low achievers in your classroom?

Description Peer tutoring is defined as the individualized instruction of one student by another. In the available research, a stronger student may have been paired with a weaker one or, in the case of students with even abilities, each student assumed the role of the tutor and the tutee during the instructional period.

Availability of Research Thirty studies were included in the peer tutoring synthesis. Eleven of these were coded by McREL as being high in quality.

Findings This research suggests that peer tutoring can be an effective approach for low-achieving students.

Promising Preliminary evidence of the effectiveness of the following programs was found but limited to elementary-level students focused on basic skills:

Classwide Peer Tutoring (CWPT)
Peer-Assisted Learning Strategies (PALS)
Reciprocal Peer Tutoring (RPT)

Absent Research on peer tutoring interventions and their effects on middle and high school students are minimal and should be the focus of future research efforts.

1. This chapter presents three specific approaches to peer tutoring. What are the differences between the approaches? To what extent might the strategies embedded in these approaches assist you in meeting the needs of your at-risk students?
2. Assessment data have an effect on the intervention described in the passage on page 39. What are the advantages of using assessment data in this manner? In what other ways do data affect your day-to-day practice?

Computer-Assisted Instruction

Description Computer-assisted instruction is generally defined as an instructional process that uses a computer to present concepts or topics, monitor student growth, and adjust to needed advancements accordingly. The available research describes interventions that pair one or two students with each computer during sessions that involve relatively little teacher interaction.

Availability of Research Seventeen studies were included in the computer-assisted instruction synthesis. Ten of these were coded by McREL as being high in quality.

Findings The number and quality of the studies in this category made a meta-analysis possible. Based on this analysis and the resulting effect size ($ES = 0.37$, or an approximate 14 percentile gain) we see that computer-assisted instruction can have a significantly positive effect on the achievement of at-risk students.

Evidenced Computer-assisted instruction for at-risk students is more effective in mathematics than in literacy.

Promising The training of the teacher/tutor and the resulting intervention may have a significant effect on the quality of a given computer-assisted instructional session.

1. This chapter provides evidence that computer-aided instruction can and does have a significant effect on the achievement of at-risk students. Why do you suppose this intervention is so consistently effective? Why do you suppose that this intervention is more effective in math than in literacy?
2. Explore the notion that a computer can serve as a tutor for a student. In what ways can computers adopt the role of tutor, and in what ways are computers likely to fall short?