This paper summarizes a report entitled "Effective Programs for Students At Risk: A Sourcebook" by the Center for Research on Elementary and Middle Schools (CREMS) at Johns Hopkins University. Based on a survey of research on services to at-risk students, the CREMS report identified programs that improved the academic performance of at-risk students in the early grades. Studies conducted in 1987 confirmed that at-risk students who attend preschool do better academically as they progress through school than students who do not attend preschool. The CREMS review concluded that full-day, compared to half-day, kindergarten programs improve students' preparation for first grade. Elementary school programs provide remedial help to students through pull-out, or out-of-class, programs. Common elements of quality pull-out programs include presentation of material by the teacher rather than from workbooks, flexible instruction, and constant monitoring of students' progress.

To assure the success of pull-out programs, the teaching methods used in the program and in the classroom must be coordinated. The CREMS report identified two categories of programs--continuous progress and cooperative learning programs--that use innovative strategies to restructure classrooms. In both types of program, children are taught in groups within the classroom in such a way that the needs of individual students and of the group are met. CREMS also identified 16 effective programs of both types, and while all are different, the underlying principles--instruction geared to student needs, materials presented by teacher, constant assessment of student progress--are the same. (BC)
How can we best help students who learn more slowly than their peers? If students receive remedial help outside of their regular classes, will they be further behind when they return? Will they continue to need special help? Or will they be able to catch up with their classmates and ultimately profit from regular instruction?

Educators have long been seeking ways to help slower students learn more quickly and to bring all children to an acceptable level of achievement. The Federal government has spent billions of dollars over the past 20 years to help educators provide remedial instruction to needy children. Today, the scope of Federal programs encompasses compensatory education programs for low-income youngsters, special education for handicapped children, and a variety of general education programs. But the success of these efforts is still being debated. Which programs work best? How can programs be improved?

The Center for Research on Elementary and Middle Schools (CREMS) at The Johns Hopkins University in Baltimore, with help from a grant by the U.S. Department of Education's Office of Educational Research and Improvement, has some of the answers to questions about children in danger of academic failure. A recent report entitled Effective Programs for Students at Risk: A Sourcebook, identifies programs that have improved the academic performance of at-risk students in the early grades.

This comprehensive study surveys the existing research on services to at-risk students, focusing on key elements in the learning process that can be evaluated, altered, and replicated. The book looks at specific curricular materials and formats that can be packaged as programs and used by a variety of schools. It isolates other features, such as class size, length of day, and staffing patterns, that increase effectiveness and can be adapted to other programs. Thus, the CREMS report identifies by name and source a number of specific, effective programs at the preschool, kindergarten, and elementary levels, highlighting characteristics common to their success.

Preschool and Kindergarten

Studies by the Elementary Schools Program at CREMS conducted during 1987 confirm that at-risk students who attend preschool do better academically as they progress through school than those who do not attend preschool. Indeed, all of the preschool approaches CREMS examined improved the academic performance of at-risk children. However, the preschool programs shared small pupil-teacher ratios and sizeable funding. CREMS believes further research is needed to determine whether less expensive forms of child care might be as effective.

The report looks at a previous CREMS finding on the effects of full-day kindergarten programs. The major conclusion of this review is that full-day, as opposed to half-day, programs improve the degree to which at-risk students are prepared for first grade. Whether the cause is simply more time in school, or the fact that full-day programs generally boast more academic curricula remains unclear. Still, disadvantaged youngsters do clearly benefit from full-day programs.

The researchers examined a number of instructional approaches that have been widely used in kindergartens. Of these, they identified six packaged programs by name that work particularly well at preparing young students to succeed in elementary school. They also found that the one element common to all effective kindergarten programs was structure. Good programs for disadvantaged children are specific, clear-cut, but flexible. Although many of the programs incorporate diverse philosophies, the best kindergarten programs all have teachers following a specific set of activities, materials, management plans, and goals.

The Elementary Level

Elementary school programs generally provide remedial help to students in one of two settings—in-class or outside the regular class, also known as pull-out. Pull-outs vary in their results, but some are quite effective. The CREMS report identifies 14 quality pull-out programs by name and highlights elements common to them all.

Of these, six are programs in which tutors work one-on-one with students identified as at-risk. Another six are diagnostic-prescriptive programs, in which youngsters are carefully assessed and then given individualized instruction as part of a group outside the regular classroom; and two are computer-assisted instruction programs that permit students to work on computers for at least part of their remedial reading or math time.

Although these programs are often very different from each other in materials used and philosophy, they have common elements. First, new material comes directly from the teacher, not from workbooks or from peers. Next, the instruction is flexible enough to meet the unique needs of individual children. And finally, students' progress is constantly monitored so that small problems are immediately corrected and not allowed to become larger.

Although pull-out programs outnumber in-class programs by 9 to 1 and there are, as stated, many such effective programs, research shows that pull-out programs are often unsuccessful.

One reason for this lack of effectiveness is time. The more time students...
spend on a task, the more likely they are to learn it. And students who have trouble keeping up with their classmates obviously need more time-on-task. Yet many ineffective pull-out programs do not add, but simply redistribute, a fixed amount of instructional time. Because students may miss new material while they are out of the class for remedial instruction, they may fall farther behind and continue to need special help throughout their formal education.

Accountability and coordination are further problems. If pull-out programs use teaching methods that are at odds with the teaching methods used in the regular classroom, the student can get more confused. Moreover, since neither the classroom teacher nor the pull-out teacher sees the child for most of the day, neither feels responsible for the overall education of the at-risk child.

The CREMS researchers assert that prevention is the best cure for at-risk children. The most effective way to prevent school failure is not through special programs that reach students only after they have fallen behind, but by integrating at-risk students into the regular educational program. CREMS scholars firmly believe that given the right kind of help, every student except the most severely disabled, should be able to succeed in school.

The CREMS report identifies two categories of programs that use innovative strategies to restructure the classroom and effectively reach all students. In both continuous progress and cooperative learning programs, children are taught in groups within the classroom in such a way that the needs of individual students and the needs of the group as a whole are met.

In continuous progress programs children are placed in small, homogeneous, competence-based groups. They learn skills in a sequential order, each new ability building on knowledge just mastered. Instruction is delivered by teachers and directed to individual students' needs. When children fail to learn, special help is given. This help may be in the form of tutoring, assignment to a different group, or special materials. In addition, careful records are kept of each student's progress. These reports are used to make sure children are placed in the correct skill level and to offer remedial help.

Cooperative learning incorporates elements of continuous progress in a restructured classroom. Like continuous progress, children learn skills in a sequential order with new material being taught directly by the teacher. The children work together on academic material in teams composed of one or two quick learners, a majority of moderate learners, and one or two slow learners. Everyone in the team must do well if the team is to succeed. These students help each other learn and prepare for tests. Children are frequently assessed, first by teammates and then by the teacher. If they have trouble learning a skill, special corrective measures are taken. Research indicates that cooperative learning has been very successful in elementary schools.

CREMS identified 16 effective continuous progress and cooperative learning programs. While all are different, underlying principles are the same. Instruction is directed at a level appropriate to student needs. New material comes from the teacher, not from written material or peers. And student progress is constantly assessed with small problems addressed immediately.

The CREMS sourcebook is divided into 12 chapters, each surveying research in different areas, with a focus on educating children who are in danger of academic failure. The findings show that effective programs from preschool through elementary school are now available for school districts to adopt. Much is known about which practices work best and how to improve existing programs for at-risk students.

For more information call Dr. Rene Gonzales, U.S. Department of Education, 202-357-6220 or visit an Educational Resources Information Center (ERIC) provider. For the nearest ERIC provider, call 1-800-424-1616 or 626-9854 in the Washington, D.C. area.

For more information about the Sourcebook or for a summary of the research, available free of charge, contact The Johns Hopkins University Center for Research on Elementary and Middle Schools, 3505 N. Charles Street, Baltimore, Maryland 21218, or call 301-338-7570.

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