Synthesis of Research on Compensatory and Remedial Education

Current Chapter 1 programs may not be worth the substantial funds that are being poured into them—the children who need quality education most are still receiving less than adequate schooling.

Over the past quarter century, programs designed to provide quality education for children who are economically disadvantaged and educationally deficient have received substantial funding. The major federally-funded program of this type, Chapter 1, accounts for 20 percent of the U.S. Department of Education’s total budget, or almost four billion dollars a year. Approximately one of every nine school-age children is enrolled in the Chapter 1 program (OEI 1987). In recent years, individual states have begun to fund their own programs targeted toward students who fail to meet state achievement standards. In South Carolina, for example, at least one-fourth of the children enrolled in public schools are in state-funded compensatory and remedial programs. Since 1985, the cost of the program in South Carolina has averaged over $55 million per year, a figure which represents approximately 20 percent of the total monies raised in support of the school reform legislation (Anderson et al. 1989).

Whether the money is supplied by federal, state, or local funds, large amounts of money are spent on the education of these children. But what do we know about the operation and effectiveness of these programs? Do the academic gains made by the children served in these programs justify the large expenditure of funds? Are changes needed in the programs to increase their effectiveness? These are the issues we will examine in this paper, basing our generalizations on the results of numerous studies conducted during the past 15 years.

Costs and Funding
Compensatory and remedial programs are more costly than regular programs. Carter (1984) estimated that Chapter 1 services cost about $436 more per student than the services provided to non-Chapter 1 students. In South Carolina, services provided to students in compensatory and remedial programs cost approximately $362 and $159 more per student, respectively, than those provided to students not in special programs (Anderson...
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The research on compensatory and remedial educational programs shows that:

- Chapter 1 programs are often so poorly coordinated with regular programs that student learning is actually impeded. Along with some federal programs for handicapped and state programs for the gifted, Chapter 1 programs contribute to a fragmentation of the curriculum.
- Although they generally lack qualifications, teacher's aides often serve as instructional staff in Chapter 1 programs because they are less expensive than certified teachers—they are chosen as pragmatic, rather than educational, reasons.
- Students in remedial and compensatory classes often spend inordinate amounts of time working alone at their desks.
- Chapter 1 teachers often have low expectations for their students and a tendency to teach to their present levels of functioning rather than to the levels they will need to be successful in the future. As a result, Chapter 1 students may do well on classroom tests and worksheets, but they often perform poorly on state or national tests.
- Chapter 1 programs are substantially less effective for students with severe learning problems than for "marginal" students, whose problems are associated with an inability or unwillingness to learn in regular classroom settings.
- Rather than exiting from the programs once they achieve better skills, Chapter 1 students often become "lifers." A primary cause of this phenomenon is the poor quality of instruction they receive.
of a perceived lack of coordination with the regular school program and partly because of a perceived lack of difficulty of the content and material included in the compensatory and remedial programs (Anderson et al. 1989). Regular classroom teachers complain that the scheduling of compensatory and remedial programs takes precedence over the scheduling of regular classes (Rowan et al. 1986).

In addition, "weak or absent" coordination of the Chapter 1 program with the regular program tends to impede student learning (OERI 1987). District administrators usually make decisions concerning the models to use to deliver educational services to compensatory and remedial students without the involvement or even the knowledge of school principals. As a consequence, principals may not have a "clear understanding of the rationale for selecting particular remedial and compensatory models for their schools, much less an understanding of how to integrate these special programs within the regular school curriculum" (Anderson et al. 1989, p. 42).

The district administrators' decisions concerning the models to use often reflect their own preferences or the availability of resources (e.g., space, personnel) (OERI 1987, Anderson et al. 1989), rather than concerns for meeting the needs of students or evidence concerning the effectiveness of particular models. The models they choose usually remain quite stable from year to year (OERI 1987). Furthermore, in schools which operate both state-funded and federally-funded programs, the two programs generally use the same delivery model (Rowan et al. 1986).

Finally, in addition to the lack of coordination with the "regular" program, there may be a problem with the coordination of these programs with other special programs. For example, Anderson et al. (1989) found less effective state-funded programs in those schools which housed both federally-funded and state-funded compensatory and remedial programs. Along with federal programs for the handicapped and state programs for gifted and talented students, compensatory and remedial programs may be contributing to both a fragmentation of the school curriculum and an administrative nightmare for principals.

Staffing decisions may be more important to program effectiveness than decisions concerning the delivery model. There is increasing evidence that the delivery model chosen does not by itself affect the quality of the instruction provided (Rowan et al. 1986) or the effectiveness of the program (Anderson et al. 1989). Excellent instruction, as well as poor quality instruction, has been observed in all delivery models (Rowan et al. 1986, Anderson et al. 1989).

The selection of instructional staff, on the other hand, may be quite important in influencing the effectiveness of the model. Specifically, using aides in compensatory and remedial programs is particularly problematic because of their general lack of qualifications (OERI 1987) and training (Anderson and Reynolds 1990). Furthermore, aides vary greatly in the quality of instruction they provide to the students (Rowan et al. 1986). Finally, less effective programs rely more on aides than do more effective programs (Anderson et al. 1989).

The two reasons for using aides are: (1) they are less expensive than certificated teachers, and (2) they are less likely to cause role conflict between instructional personnel within the classroom (OERI 1987). Like the choice of models, the choice of personnel to staff the models seems more pragmatic than educational.

**Instruction and Teaching**

**Students in compensatory and remedial programs receive instruction in smaller groups or classes, typically eight or fewer students.** One thing we know about elementary compensatory and remedial programs, in general, is that the staff/student ratio is substantially lower than that of the regular program (Carter 1984, Rowan et al. 1986, OERI 1987). But, interestingly, some remedial high school classes in South Carolina have larger numbers of students than do the regular classes.

While classes with smaller numbers of students are likely to allow teachers to provide the type of instruction and teacher-student interaction associated with higher levels of student achievement (OERI 1987), a simple reduction in class or group size does not necessarily guarantee quality teaching of higher levels of achievement. Some teachers use the same general approach to teaching regardless of class size or the achievement levels of their students (Robinson 1990).

Students in compensatory and remedial programs spend large amounts of time engaged in seatwork activities, particularly those students at the upper levels. Despite their smaller class or group sizes, students in compensatory and remedial programs (particularly those at the middle or junior high and high school levels) are seldom taught as a group (Rowan et al. 1986). Their teachers spend little class time actively or interactively teaching, where the teacher explains material to a group of students and students interact with the teacher and one another by asking questions and making comments. Instead, the students spend large amounts of time working by themselves at their seats on written assignments. During this time, teachers circulate among the students.
Giving middle or junior high school students more challenging assignments that result in a greater number of errors is more beneficial over the long term than giving them easier assignments on which they make fewer errors.

Out supervision, and are "slow learners" (Rowan et al. 1986). Furthermore, as we have mentioned, the assignments they give to students at the middle or junior high and high school levels are frequently below the level at which they are functioning, let alone the level at which they need to function in order to pass the test which is the basis for exiting the programs (Anderson et al. 1989). Finally, compensatory and remedial programs rarely teach the development of higher-order skills (Rowan et al. 1986). Rather, their emphasis is on the acquisition of basic facts and skills (Pogrow 1990).

Peterson (1989) suggests that when teachers hold higher expectations for remedial students' mathematics achievement (i.e., they teach algebra rather than review previously taught mechanical skills), the students actually do reach higher levels of achievement. Similarly, Anderson et al. (1989) concluded that giving middle or junior high school students more challenging assignments that result in a greater number of errors is more beneficial over the long term than giving them easier assignments on which they make fewer errors. Finally, Pogrow (1990) contends that emphasizing higher-order thinking skills (HOTS) "can develop the natural intellectual potential of at-risk students in a way that dramatically improves their basic skills" (p. 397).

The Effectiveness of Compensatory and Remedial Programs
Compensatory and remedial programs are more effective for "marginal" students (those closest to the standard set for program inclusion) and substantially less effective for the remainder of the students enrolled in these programs. Clearly two distinct groups of students are served by compensatory and remedial programs: the compensatory students (who have severe learning problems as a result of cumulative environmental and/or intellectual deficits) and the remedial students (who have less serious learning problems, problems associated with their inability or unwillingness to learn in regular classroom settings). Carter (1984) concluded that Chapter 1 has been effective for "students who were only moderately disadvantaged" but it did not improve the relative achievement of the most disadvantaged part of the school population (p.7). As a consequence, Rowan et al. (1986) contend that the delivery models and assignments provided to "marginal" remedial students vs. the compensatory students should be very different. Presently, they are not (Anderson et al. 1989).

The majority of students enrolled in compensatory and remedial programs remain in or periodically return to those programs for the better part of their school lives. The percentage of students who remain in compensatory and remedial programs from one year to the next ranges from 40 percent to 75 percent (Carter 1984, Davidoff et al. 1989, Potter and Wall 1990). In addition, approximately one-half of those who exit the program at the end of any given year qualify for re-entry to the program at the next testing date (Davidoff et al. 1989). As a consequence, almost one-half of the students initially enrolled in a compensatory and remed-
Compensatory and remedial programs should be reconceptualized as educational programs rather than funding programs. The availability and allocation of sufficient funding for these programs is a necessary but not sufficient condition for their effectiveness. A number of researchers have documented a wide variety of approaches and strategies used in providing services to these students. As a consequence, there is no single identifiable educational program that we can reliably term “compensatory and remedial.” Program input is the focus in the administration of these programs, not program implementation or outcomes. Thus, a student’s access to a compensatory or remedial program is, in effect, of greater importance than his or her exit from it. In fact, many funding formulas actually reward school districts for having greater numbers of students in compensatory and remedial programs.

The use of the normal curve equivalent (NCE) metric in evaluating these programs should be reconsidered. An NCE gain of one unit (currently used as a standard in judging the success of federal and state programs in several states) requires that students, on the average, attain marginally higher test scores than they might have been expected to attain given their previous test scores. Thus, for students to re-enter and achieve success in the regular school programs, they must attain substantially, not marginally, higher test scores. Program success should be equated with individual student success, not with the marginal success of students “on the average.” Stated somewhat differently, compensatory and remedial programs should be judged successful only when large numbers of these students return to and remain in the academic mainstream.

Compensatory and remedial programs must be more completely integrated into the total school program. If the goals of these special programs are to be reached, they must achieve greater integration into the total school program. Several aspects of this needed integration must be addressed simultaneously.

Principals are the key players in integrating special programs into the total school program in individual schools. Presently, many building administrators are unfamiliar with compensatory and remedial programs and the students served by these programs. Principals must develop mutual respect and must function as colleagues if formal coordination is to occur. In the words of Rowan and his colleagues: “Schools that showed the tightest coupling between Chapter 1 and regular instruction were those in which staff endorsed a norm of collegiality and had developed shared beliefs about instruction” (p. 94).

Finally, several curriculum issues must be resolved if integration across programs is to be complete. Sufficient comparability of the curriculum across programs is necessary if students are to be able to move from program to program. The likelihood that students will remain in programs for the duration of their academic careers increases with curriculum diversity across programs because, quite literally, there is nowhere else to go. Teachers must increase the pace at which compensatory and remedial students move through the curriculum if these students are not to fall further behind their same-age peers.

The ultimate goal of compensatory and remedial programs—to bring academically deficient students back into the academic mainstream—will be better served if all administrators and teachers see these programs as an integral part of the total school pro-
gram and as an important component in the school’s educational mission. For programs to be seen in this light, principals and teachers must be better informed about the philosophical basis of and rationale for these programs as well as their organization, structure, integration, and evaluation. Once informed, they must use this knowledge to make important program and student decisions.

The quality of the education provided to compensatory and remedial students must be increased substantially. Once children are placed in compensatory and remedial programs, they usually remain in or return to those programs throughout their school careers. The evidence for this is so compelling that Anderson and his colleagues (1989) referred to these students as “lifers,” while Pogrow (1990) termed them “professional Chapter 1 students.” The specific reasons for this phenomenon are not completely clear, but there is ample reason to believe that the level and quality of instruction provided to these students are among the primary causes. (Anderson et al. 1990).

In order to improve the level and quality of instruction provided to compensatory and remedial students, we must first admit that smaller classes and greater individual student attention do not guarantee excellence in teaching or learning. The qualifications and training of those providing the services, the quality of the services provided (as opposed to whether the services have been provided), and the accomplishments of those receiving the services must be considered in determining program effectiveness.

Two aspects of quality instruction, expectations and teaching, need further elaboration. Many teachers hold low expectations for compensatory and remedial students. These teachers assign them less difficult work than necessary for students to develop the knowledge and skills needed to “pass the test” and move out of the program. Too often, these teachers accept effort (“they tried”) rather than accomplishment (“they learned”) in judging student success. They emphasize the learning of facts and discrete skills over the ability to think and reason. Students in these programs spend large amounts of time working on worksheets by themselves. Little interaction with peers has been observed, little whole-class or whole-group dialogue with teachers has been noted. Given the relatively smaller number of students in the classes, this level of student isolation is quite surprising.

Based on the above analysis, we suggest several changes in the level or quality of instruction provided to these students. First, students should be assigned more challenging content and associated tasks at a more rapid pace. Second, teachers should direct more active teaching to the entire class or to small groups of students. Third, at the very least, teachers and administrators should see that their programs incorporate higher-order thinking skills. Finally, schools should create substantially different instructional programs for compensatory and for remedial students.

**Back to the Mainstream**

In 25 years, we have apparently learned very little as a result of our efforts to provide appropriate educational experiences for culturally and educationally deprived children. Our neediest students are enrolled in the neediest programs. Rather than truly compensating or remediating these students, we have contented ourselves with merely slowing the rate at which they fall further and further behind. We continue to justify continuing huge financial commitments to programs that simply don’t work very well, year after year after year. Those who make key decisions about compensatory programs are obviously reluctant to deviate very much from the established norms in program delivery, content, and measures of success. Unfortunately, the grim reality is that if you do what you did—you will get what you got!

This reluctance is inexplicable and tragic because we have both the technical expertise and sufficient resources to provide appropriate and effective services to compensatory and remedial students. But can we muster the necessary commitment, and are
we willing to dedicate the resources and apply the know-how to ensure the educational success of a very large, but politically less than powerful, segment of our school population?

Throwing money at the problem in no way absolves policymakers and society in general, of the responsibility for providing these students with a set of educational experiences that are both appropriate and effective. In the final analysis, successful programs can be realistically defined only in terms of individual student success. And the ultimate measure of success can only be the ability of large numbers of remedial and compensatory students to exit these special programs and return to and remain in the academic mainstream.

The total number of students served in state compensatory- and remedial programs is difficult to calculate precisely because the South Carolina Department of Education “double counts” students. That is, if a student is concurrently enrolled in both remedial reading and remedial mathematics, that student would appear twice in the overall total.

References


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