

Achievement Gains in Self-Contained Chapter 1 Classes in Kansas City

Double-staffing and small-group instruction in Project Alternative Rooms, along with other districtwide efforts, are improving mathematics and reading scores of low-achieving students.

Beginning with the 1983-84 school year, the Kansas City (Missouri) School District significantly modified arrangements for expending Chapter 1 (ECIA) funds by organizing Project Alternative Rooms (PARs) at eligible schools. Students who participate in the program receive instruction in double-staffed, self-contained classrooms rather than through supplementary programs that "pull out" from regular classrooms.

The district implemented the project in 61 classrooms at 28 elementary schools. Maximum class size was 25 in the second grade and 30 in the fourth and sixth grades. During 1984-85 and 1985-86, the district reorganized the program to enroll students in the first, second, and fourth grades in 79 classrooms at 30 schools. Maximum class size was 25 in grades one and two, and 30 in grade four.

Students in Chapter 1 schools are eligible for the program if they are below the 45th percentile on the Iowa Basic Skills Test in grades one and two or below the 40th percentile in grade four in two of three achievement areas: reading (comprehension and vocabulary scores averaged), language, and mathematics. Students selected for participation have the lowest achievement average (across reading, language, and math) at their grade level.

Kansas City's Chapter 1 office describes the key instructional elements of the approach as involving "motivation, basic skills emphasis, team teach-

ing, and small-group instruction." The program places emphasis on "language arts/reading, spelling, listening, speaking, and writing. Mathematics skills are also stressed. The double staffing makes it possible to use the strength of each teacher. . . . Small-group instruction is provided to ensure that all children receive the personal attention and reinforcement needed to learn at their maximum rate."¹

Achievement Results

First graders ended the 1985-86 academic year with average scores of 1.7, 1.9, and 1.6 in reading, language, and math, respectively, and registered respective gains of 1.0, 1.5, and 1.2 in these subjects. (Longitudinal data are not available for 1984-85.) These are excellent gains considering that these students were far below the national average at the end of kindergarten. By the end of first grade they were close to the national average in reading and language.

Table 1 presents data on the performance of second- and fourth-grade program students in 1984-85 and 1985-86. Second-graders gained from 1 to 1.2 years in reading, language, and math. Fourth-graders gained an average of 1 to 1.3 years in reading, language, and mathematics. Even though these students were the lowest achieving students in the lowest achieving schools, their gain rates generally equaled or exceeded the national average of 1.0.

Comments and Conclusions

1. Reading scores for the second and fourth grades are still far below the national average (2.9 and 4.9), even though students no longer fell farther behind each year as they had previously. Although average gains in grade-equivalent scores and percentiles were less in reading than in language and math, large increases in language scores may help provide a basis for reading gain later. In any case, the relatively low reading scores and the great importance of comprehension and vocabulary for learning in all subject areas suggest that reading should receive particular attention in the future.

2. Because students selected for the program generally had the lowest achievements in reading, language, and mathematics during the preceding year, some regression to the mean in their post-scores was probable. However, the method of selecting students minimizes this problem. Eligibility for the program is based on low scores in two of the three subjects (i.e., reading, language, and math), and final selection is based on an average of the three scores.

3. A substantial number of students were at or close to the guessing level on the Iowa test when selected for the program. That is, many had been making little or no real progress in reading comprehension, language, and mathematics. Many of these students appeared to make meaningful learning gains and at least entered the learning

ballpark during their time in the program.

4. Project Alternative Room is central to a much larger district effort to improve student achievement. By placing students in self-contained classrooms with special assistance, the district moved to make the job of the regular classroom teacher more manageable. In addition, the district provided each elementary school with (at least) one full-time specialist to assist principals in improving instruction; implemented an annual school-based planning process; set aside time in the regular school week for staff development; limited the number of reading groups per classroom; provided teachers with training in effective teaching, teacher-expectations improvement, and other topics; initiated a new promotions policy; introduced Chicago Mastery Learning Reading at most elementary schools; and undertook other changes.

Taken together, these changes appear to be raising achievement in Kansas City elementary schools. District averages in language and mathematics now are generally at or above the national average in the elementary schools, reading comprehension averages are relatively close to the national average, and vocabulary scores also are close to the national average through the fifth grade. These patterns do not justify complacency: the highest scores are registered for the relatively "mechanical" language skills (spelling, punctuation, grammar, capitalization),

which are easiest to teach and test but which many students rapidly forget. They do indicate, however, that scores have been improving in all basic skills areas including the important skills of comprehension and vocabulary.

5. We found large differences from one Project Alternative classroom to another in reading, language, and mathematics. At the second-grade level, for example, 1984-85 reading gains from the end of the first grade to the end of the second grade ranged from two months in one classroom to one year and nine months in another. To some extent we expect these differences: classes that start high are likely to gain less than those that start very low. In addition, problems and inaccuracies related to test administration probably account for some, but not most, differences in gain from one classroom to another. Some classes that started at about the same level made very different gains. For example, two classes that started at 1.0 and 1.1 in reading made gains of five and six months respectively, while two others that started at 1.2 made gains of 1.2 and 1.3, respectively.

6. A substantial proportion of project students are low achievers who have been retained in grade as part of the promotions policy Kansas City initiated in 1984. Thus, the relatively high achievement scores of some participating students may be due in part to their spending two years in the same grade. Several analysts attribute spurious achievement "gains" in other

large cities to rigorous promotions policies that hold back students a second year.²

To help determine whether retention patterns account for much of the achievement improvement reported in Project Alternative Rooms, we conducted a separate analysis for project students who were retained in grade during 1985-86. In general, we found that their gain scores are similar to those for all project students. Thus, the relatively high achievement scores of project students do not appear to be an unfounded artifact of the promotions policy. Our findings also suggest that the promotions policy is working well for retained students who receive the special assistance and support provided in the program. □

1. Chapter 1 Staff, *Evaluation Report. Pilot and Modified Alternative Rooms* (Kansas City: The School District of Kansas City, July 1984), 1.

2. Daniel U. Levine and Eugene E. Eubanks, "Achievement Improvement and Non-Improvement at Concentrated Poverty Schools in Big Cities," September 1986 (draft).

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Table 1
Achievement of Second- and Fourth-Grade Project Alternative Rooms Students in 1984-85 and 1985-86

	Second Grade						Fourth Grade					
	1984-85 (N=659)						1984-85 (N=489)					
	Spring 1984 Pre-Scores		Spring 1985 Post-Scores		G.E.	% Gain	Spring 1984 Pre-Scores		Spring 1985 Post-Scores		G.E.	% Gain
Reading	1.3	8	2.3	13	1.0	5	2.7	4	3.7	7	1.0	3
Language	1.4	4	2.5	17	1.1	13	2.9	5	4.2	18	1.3	13
Mathematics	1.3	4	2.5	12	1.2	8	3.0	2	4.3	16	1.3	14
	1985-86 (N=607)						1985-86 (N=458)					
	Spring 1985 Pre-Scores		Spring 1986 Post-Scores		G.E.	% Gain	Spring 1985 Pre-Scores		Spring 1986 Post-Scores		G.E.	% Gain
	G.E.	Group %	G.E.	Group %	G.E.	% Gain	G.E.	Group %	G.E.	Group %	G.E.	% Gain
Reading	1.3	8	2.3	13	1.0	5	2.6	3	3.7	7	1.1	4
Language	1.4	4	2.5	17	1.1	13	3.1	9	4.3	21	1.2	12
Mathematics	1.4	6	2.5	12	1.1	6	3.0	2	4.3	16	1.3	14

Reading = average of comprehension and vocabulary scores. Percentiles shown are for school-level norms.

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