Evaluating the Accelerated Schools Approach: A Look at Early Implementation and Impacts on Student Achievement in Eight Elementary Schools

Executive Summary

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Overview

A key challenge faced by elementary schools is finding effective ways to help all students develop the skills needed to succeed in later education and the labor market. Remedial education programs have been a traditional response to academic problems, especially among poor and minority students, but past research has shown that this approach can keep students from joining the educational mainstream. The Accelerated Schools approach charts a different course, seeking to "accelerate" rather than slow down the learning of children at risk of school failure.

Developed by Dr. Henry M. Levin and his colleagues at the Accelerated Schools Project (ASP), the Accelerated Schools model is now being used in more than 1,000 elementary and middle schools. Accelerated Schools seek to (1) create a new, supportive school culture that sets high expectations for teachers and students; (2) institute a governance structure characterized by broad staff participation in decision making and by procedures for taking stock of the school's strengths and problems and for generating solutions; and (3) introduce a "powerful learning" approach to curriculum and instruction that is more challenging, interactive, project-based, and relevant for students than traditional approaches.

At ASP's invitation and with funding from the Ford Foundation, MDRC conducted an independent evaluation of the Accelerated Schools reform in eight elementary schools around the country. The schools selected by the research team served a high proportion of at-risk students, had implemented the early version of the reform's main components by the early 1990s, did not institute other major reforms during the study period, and were able to supply the requisite data. In the study's "interrupted time series" design, the schools' third-grade test scores in reading and math during the three years before the reform was launched were used to predict what the third-grade test scores would have been without the reform during each of the five following years. To estimate impacts on student achievement, the predicted test scores were then compared with the actual scores. The study focused on successive cohorts of third-graders because this grade marks a critical point in the development of basic reading and math skills.

Among the study's key findings:

- **During the first three years of implementation, the schools focused on reforming school governance and culture, turning to curriculum and instruction only in the third or fourth year.**

- **The reform's impacts on third-grade test scores tracked schools' implementation of it. There were no positive impacts in the first two years, a slight decline in the third year — as schools began to modify their curriculum and instruction — and a gradual increase in the fourth and fifth years. The average third-grade reading and math scores in the fifth year exceeded the predicted levels by a statistically significant amount.**

- **These impacts were not uniform across all students or all schools. The largest impacts were observed among students who would have scored in the middle of their school's test score distribution without the reform and among the schools that had the lowest test scores before launching the reform**.

These results should be interpreted with caution for several reasons: They are based on a sample of only eight schools, the positive impacts took four to five years to emerge, and it is not known whether the impacts will persist in later grades. Nevertheless, these findings show that the Accelerated Schools approach improved academic achievement in a group of mostly at-risk students.

Executive Summary

Elementary schools are expected to teach children many skills that form the basis for success in later education and the labor market. Schools' typical response to low academic achievement, especially among poor and minority students, has been remedial education programs that slow down the pace of instruction or simplify the content of the curriculum. Past research suggests that this approach has serious limitations and can put students who are at risk of school failure at still greater disadvantage.

The Accelerated Schools approach charts a different course, calling for a complex series of school changes designed to "accelerate" the learning of at-risk children. Developed over the last 15 years by Dr. Henry M. Levin and his colleagues under the aegis of the Accelerated Schools Project (ASP), the approach is now in use in more than 1,000 elementary and middle schools. Accelerated Schools aim to (1) create a new, supportive *school culture* that helps all children learn and sets high expectations for teachers and students; (2) institute a new *governance structure* consisting of a structured process for taking stock of the school's problems and strengths, work groups (called *cadres*) devoted to school issues of concern, and school-wide meetings at which important decisions are reached by consensus; (3) use *powerful learning,* a teaching approach that is more challenging, interactive, project-based, and relevant for students than traditional instruction; and (4) receive *technical assistance* in implementing the reform from ASP's National Center and 11 Satellite Centers across the country.

At ASP's invitation, the Manpower Demonstration Research Corporation (MDRC) conducted an independent evaluation of Accelerated Schools at the elementary level. The objective of the study, which was funded by the Ford Foundation, was to assess whether the Accelerated Schools approach improved student achievement in a small sample of schools that served at-risk students and had launched the reform early in its development. This report, the culmination of the study, presents findings on the reform's implementation and impacts. All eight schools in the study adopted the reform in the early 1990s, before powerful learning — a key component — was refined to make its implications for classroom practice clearer and before the technical assistance provided by ASP was extended and improved. The study examined the Accelerated Schools model's effects on the reading and math achievement test scores of the schools' third-grade cohorts during each of the five years after the reform began to be implemented. The third grade was chosen as the focus of the study because it marks a critical point in the development of basic reading and math skills and is late enough in elementary school for students to have been exposed to the reform for a considerable time (up to three years).

I. Findings in Brief

- Three years after launching the Accelerated Schools model, all the study schools had adopted the practices aimed at improving school culture and governance. Changes in curriculum and instruction were implemented less systematically and more slowly, with many schools starting to address these topics only in the third or fourth year of implementation.

- At the end of the five-year follow-up period, the average third-grade math and reading test scores in the participating schools were higher than those during the baseline period by a statistically significant amount. The magnitude of these test score improvements is similar to that found in the well-known Tennessee class-size experiment.

- The findings suggest that students who would have been in the middle of their school's test score distribution without the reform were the most likely to experience an improvement in test scores.
- The observed increases in average test scores were largest among the study schools that had the lowest average test scores before implementation of the Accelerated Schools model.
- Improving test scores in schools that serve at-risk students has proven to be an extremely difficult challenge to meet, making the present findings of particular interest. Nevertheless, the effects found here should be interpreted with caution because they are based on a sample of only eight Accelerated Schools that had reached an advanced stage of implementation by the early 1990s, did not emerge until four to five years after the reform was launched, and may not persist in later grades.

II. Study Design

To estimate the reform's impacts on student achievement over a period of sufficient length, the schools in the study were required to have launched the Accelerated Schools reform at least five years before the start of the study period and to have five years of baseline test score data. ASP staff nominated 91 elementary schools that they believed had been implementing key elements of the reform for at least five years, and the MDRC research team independently selected schools from this group. The eight urban and rural schools in the final sample were chosen for serving mostly at-risk students, having launched the reform and implemented its main components by the early 1990s, not having instituted other major reforms during the study period (to help rule out alternative explanations for any test score impacts observed), and being able to supply the requisite data. It is important to bear in mind that the study schools, though not a hand-picked group selected on the basis of test score trends, are also not a representative sample of Accelerated Schools from the early 1990s.

The study period encompassed a baseline (prelaunch) period of three years[1] and a follow-up (postlaunch) period of five years. The findings are based on an *interrupted time-series* design in which the test score level in each subject (reading and math) that would be expected in the absence of the Accelerated Schools reform was estimated using test score data from the baseline period. Specifically, it was assumed that, if the reform had not been implemented, the test score level during the follow-up period would have been the same as the average level during the three baseline years. The difference between the expected level and the actual level in each follow-up year was taken as an estimate of the Accelerated Schools reform's *impact* on test scores in that year.[2] The impact analyses focus on the entire sample of schools rather than on individual schools.

[1]Impacts were also estimated using all five years of baseline data, but this procedure did not materially change the findings and was not used for reasons described in the following paper: Howard S. Bloom, "Measuring the Impacts of Whole-School Reforms: Methodological Lessons from an Evaluation of Accelerated Schools" (New York: MDRC, 2001).

[2]The small changes in the composition of the student body that were observed, which might also have influenced test scores, were controlled for through statistical adjustments.

III. Implementation of the Accelerated Schools Approach

- **During their first three years of implementation, the study schools focused on reforming school governance and culture; substantial changes in curriculum and instruction were typically not made until the third or fourth year.**

Most schools used the reform's "inquiry" process to take stock of current school performance and to identify key issues to address. They then used cadres to analyze courses of action and to develop recommendations, a steering committee to advise the cadres and coordinate the process, and school-wide meetings to decide important questions. The adoption of these processes was generally credited with creating an atmosphere of greater trust and support for staff, raising expectations of teachers and students, and increasing staff participation in decision-making.

- **Administrators and faculty working in these schools reported that when they first adopted the Accelerated Schools model, powerful learning was not precisely or concretely defined.**

Many staff were confused about the instructional changes prescribed by the Accelerated Schools model. They also reported a lack of explicit guidance from ASP, especially about instructional practices, after the start-up phase of the reform. During the first three years of the follow-up period, most of the schools used the governance procedures to reach their own decisions about instruction, with an emphasis on aligning the curriculum with new state or local standards rather than on developing new instructional techniques or new classroom practices.

IV. Impacts on Student Achievement

- **Impacts tracked implementation.**

On average, there was no systematic change in test scores during the first two years of Accelerated Schools implementation, during which time the schools focused on establishing supportive cultures and decision-making processes. During the third year, test scores declined somewhat, as schools began to make instructional changes that may have temporarily disrupted instruction. During the last two years of the follow-up period, test scores gradually rose.

- **In the fifth follow-up year, the average test scores in the sample schools exceeded the baseline level in both reading and math by a statistically significant amount.**

In the fifth year of the follow-up period, the average third-grade reading and math test scores in the study schools overall were 0.19 standard deviation and 0.24 standard deviation above their respective baseline averages. These differences, which are statistically significant, are small to modest by the conventional standards of evaluation research. However, the impacts found in the Tennessee class-size experiment — which are widely considered policy-relevant — are of similar magnitude. The positive impacts in the last follow-up year are especially noteworthy given the low cost of this early version of the Accelerated Schools model relative to that of other school reform approaches.

- **The average reading and math scores in the study schools increased 7 to 8 percentile points relative to the scores of other students who took the**

same tests, leaving the study schools at or near the middle of their state or national distributions.

The positive impacts on test scores in the fifth follow-up year reflect an overall increase in the average reading score from the 37th percentile during the baseline period to the 44th percentile in the fifth follow-up year. The corresponding increase in the average math score was from the 45th percentile to the 53nd percentile.

- **The impacts were not uniform across students or schools. Students who would have been in the middle of their school's test score distribution without the Accelerated Schools reform were the most likely to experience test score improvements. The schools that had the lowest test scores during the baseline period were the most likely to experience large impacts**.

The differential impacts on different groups of students may be attributable to the fact that the instructional changes made were not substantial enough to affect the lowest-achieving students. It is also possible that lower-performing students had higher mobility — that is, were more likely than higher-performing students not to have attended the Accelerated School during the entire follow-up period — and therefore received less exposure to the reform. Nevertheless, the Accelerated Schools initiative improved the performance of even lower-performing students, because (especially in the initially lowest-performing schools) even those students who scored in the middle of their school's distribution were typically below average nationally or statewide. Furthermore, the schools that during the baseline period had the lowest test scores relative to their state or national norms experienced the largest relative gains.

V. Implications for the Accelerated Schools Reform

Together these findings demonstrate the potential of the Accelerated Schools approach, as it was implemented early in its development, to improve student achievement. Given the difficulty of raising test scores in schools like those in this study and the relatively low cost of Accelerated Schools, these findings are noteworthy.

The present study examined the effect of the Accelerated Schools model on the test scores of all third-grade students who attended the study schools during the follow-up period. Although the level of student mobility in these schools was relatively high, this focus was chosen because it addresses a policy-relevant question: What were the impacts of Accelerated Schools on third-grade students when the reform was implemented under real-world conditions — which include, among other things, high student mobility? Many other studies of education reforms, in contrast, have asked how the reform under study affects only those students who remain in the schools long enough to receive a full "dose" of the reform. Both questions are important, but the present findings may not be directly comparable to those from the latter type of research; specifically, the impacts reported here are likely to be smaller than those found in other studies.

These findings also suggest a need for some operational refinements of the Accelerated Schools approach, many of which have been put in place since the schools in this study began implementing the reform. The lack of emphasis on curriculum and instruction in the initial years of implementation, the negative impact on achievement in the third follow-up year, and the appearance of positive impacts only at the end of the follow-up period all point to a need to focus on curriculum and instruction earlier in the reform process and to make powerful learning easier to implement. ASP now provides more technical assistance and encourages schools to change their curriculum and instruction earlier in the process. Further, ASP has worked extensively to make the concept of powerful learning more concrete — for instance, by providing staff with specific illustrations of ways in which they could modify their classroom practices.