Reducing the Gap:
Success for All and the Achievement
of African-American and Latino Students

Robert E. Slavin
Johns Hopkins University

Nancy A. Madden
Success for All Foundation


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Abstract

The gap in academic achievement between African-American and Latino children and their White peers is arguably the most important of all educational and social problems in the U.S. On fourth-grade NAEP reading scores, the gap diminished during the 1970’s, but has remained virtually unchanged since the early 1980’s.

This paper presents research on the effects of Success for All, a comprehensive reform model for elementary schools, on the achievement gap. A large number of studies have found significant positive effects of Success for All on the reading achievement of African-American and Latino students. A Texas statewide evaluation of 111 Success for All schools found that while the TAAS-Reading achievement gap was diminishing for all students in Texas in 1994-98, probably due to a ceiling effect for White students, it diminished significantly more for both African-American and Latino students in Success for All schools. For schools that had implemented Success for All for the longest time (four years), the final gap was only four percentage points for African-American students and seven for Latinos, compared to 14 and 10, respectively, for Texas African-American and Latino students not in SFA schools.

The results of the Success for All studies, as well as studies of other interventions, suggest that African-American and Latino students may be particularly responsive to improved quality of instruction, and that with a variety of educational interventions it may be possible to substantially reduce or eliminate the persistent achievement
The gap in academic achievement between African-American and Latino children and their White peers is arguably the most important of all educational problems. This gap, which appears early in elementary school, grows in absolute terms over the school years; on several scales of the National Assessment of Educational Progress (NAEP), African-American and Latino seventeen year olds perform at the level of white thirteen year olds (Campbell, Hombo, & Mazzeo, 2000). These differences translate directly into differences in high school graduation rates, college attendance and completion, and ultimately, the differences in income and socioeconomic status that underlie our most critical social problems. If African-American, Latino, and other minority students performed in school at the same level as Whites, the broad social impact would be profound, almost certainly affecting the socioeconomic status of minority individuals, college admissions, and ultimately segregation, prejudice, and racial tension.

In 1954, when Brown vs. Board of Education began the process of school desegregation, social scientists confidently predicted that the racial gap in academic performance would soon be eliminated. Sadly, this did not occur. According to scores on NAEP (Donahue et al., 1999), the reading achievement of White fourth graders is virtually unchanged since the earliest national assessments in 1971 (see Figure 1). During the 1970’s, African-American and Latino students made significant progress on NAEP reading, but there has been little further change since the early 1980’s. In subjects other than reading, similar patterns have also been seen, and significant gaps in performance still exist today and are no longer diminishing.
The gap reduction seen in the 1970’s is important in demonstrating that the achievement gap is not immutable, but can be changed on a national scale. Many explanations for this period of progress have been advanced, but the greatest likelihood is simply that schooling for African-American and Latino children went from abysmal to merely terrible. This was the period when our country saw the first fruits of Great Society programs, such as Title I, desegregation, and other improvements in basic schooling of African-American and Latino students. Significantly, the greatest advances were seen among African-American children in the South, where the most dramatic social and educational changes took place in the civil rights era.

*based on data from Campbell, Hombo, & Mazzeo, 2000.
Since 1980, according to NAEP, achievement for all ethnic groups has virtually stagnated, and therefore the gap has remained unchanged. Clearly, African-Americans and Latinos, on average, attend schools that are far less well funded than those attended by Whites, their teachers are less highly qualified, and their families are more likely to suffer from the ills of poverty, which have direct bearing on children’s success in school. Some theorists suggest that educational equality will not be achieved until economic and social equality is achieved, but given the dependence of socioeconomic status on educational attainment, it is hard to see how economic success would precede academic success, at least in the near term. If it is possible to do so, it is essential to intervene directly in the quality of education provided to African-American and Latino children, while we are waiting for social and economic equality to arrive.

**Educational Approaches to Gap Reduction**

Many approaches to accelerating the achievement of African-American and Latino children have been proposed. Some researchers (e.g., Boykin, 1996) have argued that schools fail to take advantage of the cultural and personal assets of African-American students, and there have been demonstrations, in various innovative schools and in laboratory research, that culturally consistent instruction can be beneficial to African-American students.

Another approach to reducing the achievement gap is simply to improve the quality of instruction provided to African-American and Latino students. In this regard, there are several lines of research that suggest that the achievement of African-American students is particularly susceptible to improvements in educational quality. For example,
the famous Tennessee Class Size Study (Achilles, Finn, & Bain, 1997/98) found significant positive effects for all children of reducing class sizes from an average of 22 to an average of 15. However, the impact of class size reduction was much greater for African-American students than for White students. Longitudinal followup studies have shown lasting benefits of class size reduction in grades K-3, but again, it is African-American students who continue to show the most significant benefits. The recent evaluations of voucher experiments in four cities, reported by Howell, Wolf, Peterson, & Campbell (2000), has been highly controversial, as are vouchers themselves. However, critics as well as defenders of the study agree that if any group of children benefited from the opportunity to attend private schools, it was African-American students alone who showed achievement gains. Sociological studies have often shown that the payoffs of educational attainment are greater for African-Americans than for other groups. It is not entirely clear why African-American students would be particularly responsive to improvements in educational quality, but the phenomenon has been demonstrated often enough to be taken seriously by policy makers as well as social scientists.

For Latino students, reductions in achievement gaps are complicated by issues of language. A component of the achievement gap between Latino and Anglo students is certainly limited English proficiency among a significant minority of Latino students, especially those in the first generation (but note that students at the lowest levels of English proficiency are excluded from the NAEP, meaning that the true gap is even larger than it appears). However, studies also find lower academic attainment for second- and third-generation Latino students, so recent immigration or limited English language proficiency cannot be responsible for the entire gap. Improvements are clearly necessary
in the schooling of all Latino students, both fully English proficient and limited English proficient.

**Success for All and the Achievement Gap**

One educational innovation that is having a widespread and disproportionate impact on African-American and Latino students is Success for All, a comprehensive reform model for elementary schools first developed and piloted in inner-city Baltimore in 1987. Today, Success for All is used in about 1800 schools in 48 states, serving about one million children. Overwhelmingly, these schools are high-poverty, Title I schoolwide projects, and about two-thirds of all Success for All children are African-American or Latino. Success for All is the largest of a set of whole-school reform models, all of which focus on changing all aspects of school functioning, from curriculum and instruction to parent involvement, provisions for children experiencing difficulties, and assessment. All of these comprehensive reform models, especially James Comer’s (1988) School Development Project and Direct Instruction (Adams & Engelmann, 1996), are primarily used in Title I schoolwide projects, and therefore disproportionately serve African-American and Latino students.

Success for All, which focuses primarily on reading, provides schools with research-based curriculum materials, instructional strategies, and extensive professional development and followup. It provides one-to-one tutoring for young children struggling in reading, as well as active parent involvement programs. Table 1 summarizes the program’s main elements.

There are two ways in which Success for All (and other comprehensive reforms)
might be expected to affect the achievement gap between African-American and Latino students and their White counterparts. First, because it is so often adopted by schools that are majority African-American or Latino, the program could affect the gap simply by giving these children more effective instruction. Second, even in integrated schools, Success for All could have a differential positive effect on the achievement of African-American or Latino students. There is evidence to support both of these mechanisms, which is reviewed in the following sections.

Table 1

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<th>Major Elements of Success for All</th>
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<td><strong>A Schoolwide Curriculum.</strong> During reading periods, students are regrouped across age lines so that each reading class contains students all at one reading level. Use of tutors as reading teachers during reading time reduces the size of most reading classes to about 20. The reading program in grades K-1 emphasizes language and comprehension skills, phonics, sound blending, and use of shared stories that students read to one another in pairs. The shared stories combine teacher-read material with phonetically regular student material to teach decoding and comprehension in the context of meaningful, engaging stories. In grades 2-6, students use novels or basals but not workbooks. This program emphasizes cooperative learning activities built around partner reading, identification of characters, settings, problems, and problem solutions in narratives, story summarization, writing, and direct instruction in reading comprehension skills. At all levels, students are required to read books of their own choice for twenty minutes at home each evening. Classroom libraries of trade books are provided for this purpose. Cooperative learning programs in writing/language arts are used in grades K-6.</td>
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<td><strong>Preschool and Kindergarten.</strong> The preschool and kindergarten programs in Success for All emphasize language development, readiness, and self-concept. Preschools and kindergartens use thematic units, language development activities and a program called Story Telling and Retelling (STaR).</td>
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<td><strong>Eight-Week Assessments.</strong> Students in grades 1-6 are assessed every eight weeks to determine whether they are making adequate progress in reading. This information is used to suggest alternate teaching strategies in the regular classroom, changes in reading group placement, provision of tutoring services, or other means of meeting students’ needs.</td>
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<td><strong>Family Support Team.</strong> A family support team works in each school to help support parents in ensuring the success of their children, focusing on parent education, parent involvement, attendance, and student behavior. This team is composed of existing or additional staff such as parent liaisons, social workers, counselors, and vice principals.</td>
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<td><strong>Facilitator.</strong> A program facilitator works with teachers to help them implement the reading program, manages the eight-week assessments, assists the family support team, makes sure that all staff are communicating with each other, and helps the staff as a whole make certain that every child is</td>
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with any students who are failing to keep up with their classmates in reading. Tutorial instruction is closely coordinated with regular classroom instruction. It takes place 20 minutes daily during times other than reading periods.

**Research on the Achievement Effects of Success for All**

From the very beginning, there has been a strong focus in Success for All on research and evaluation, and most of the studies of this model have involved African-American or Latino students. Longitudinal evaluations of Success for All emphasizing individually-administered measures of reading were begun in its earliest sites, six schools in Baltimore and Philadelphia. Later, third-party evaluators at the University of Memphis (Steven Ross, Lana Smith, and their colleagues) added evaluations in Memphis; Houston, Texas; Charleston, South Carolina; Montgomery, Alabama; Ft. Wayne, Indiana; Caldwell, Idaho; Tucson, Arizona; Clover Park, Washington; Little Rock, Arkansas; and Clarke County, Georgia. Each of these evaluations has compared Success for All schools to matched comparison schools using either traditional methods or alternative reform models on measures of reading performance, starting with cohorts in kindergarten or in first grade and continuing to follow these students as long as possible. Other studies have compared Success for All to a variety of alternative reform models, have compared full and partial implementations of SFA, and have made other comparisons. Several studies have also examined the impact of Success for All on state accountability measures, compared to gains made in the state as a whole or to other comparison groups (see Slavin & Madden, 1999, 2000, 2001 for comprehensive reviews of the research; see Herman,
Studies Comparing Success for All to Matched Control Groups

The largest number of studies has compared the achievement of students in Success for All schools to that of children in matched comparison schools using traditional methods, including locally-developed Title I reforms. These studies primarily used individually-administered, standardized measures of reading.

A total of 35 schools in 13 districts have been involved in studies using individually-administered reading measures. Twenty-one of these schools served schools that were majority African-American, and seven more had populations that were 25% to 50% African-American. Four were majority Latino, and three more had Latino minorities of 20-25%.

A common evaluation design, with variations due to local circumstances, has been used in the Success for All evaluations carried out by researchers at Johns Hopkins University, the University of Memphis, and WestEd. Each Success for All school involved in a formal evaluation was matched with a control school that was similar in poverty level (percent of students qualifying for free lunch), historical achievement level, ethnicity, and other factors. Schools were also matched on district-administered standardized test scores given in kindergarten or on Peabody Picture Vocabulary Test (PPVT) scores given by the evaluators in the fall of kindergarten or first grade. The measures used in the evaluations were three scales from the Woodcock Reading Mastery Test (Word Identification, Word Attack, and Passage Comprehension, grades K-6), the
Durrell Oral Reading scale (grades 1-3), and the Gray Oral Reading Test (grades 4-7). Analyses of covariance with pretests as covariates were used to compare raw scores in all evaluations.

Results for all experimental-control comparisons in all evaluation years are averaged and summarized in Figure 2 using a method called multi-site replicated experiment (see Slavin & Madden, 2001).

Reading Outcomes

The results of the multi-site replicated experiment evaluating Success for All are summarized in Figure 2 for each grade level, 1-5, and for follow-up measures into grades 6 and 7. The analyses compare cohort means for experimental and control schools. A cohort is all students at a given grade level in a given year. For example, the Grade 1
graph compares 68 experimental to 68 control cohorts, with cohort (50-150 students) as the unit of analysis. In other words, each first grade bar is a mean of scores from about 6000 students. Grade equivalents are based on the means, and are only presented for their informational value. No analyses were done using grade equivalents.

Statistically significant ($p=.05$ or better) positive effects of Success for All (compared to controls) were found on every measure at every grade level, 1-5, using the cohort as the unit of analysis. For students in general, effect sizes averaged around a half standard deviation at all grade levels. Consistently, effect sizes for students in the lowest 25% of their grades were particularly positive, ranging from $ES=+1.03$ in first grade to $ES=+1.68$ in fourth grade. Again, cohort-level analyses found statistically significant differences favoring low achievers in Success for All on every measure at every grade level. A followup study of African-American students in five Baltimore schools found that similar positive program effects for the full sample of students continued into grade 6 ($ES=+0.54$) and grade 7 ($ES=+0.42$), when students were in middle schools.

**Ft. Wayne Study of Achievement Gap Reduction**

One of the studies included in Figure 2 took place in two experimental and two control schools in Ft. Wayne, Indiana. In this study, the authors (Ross, Smith, & Casey, 1995) found significant gaps between African-American and White students at pretest on individually-administered reading measures. At posttest, the achievement gaps had grown in the control group, but had diminished in the SFA schools, so that the gap was no longer statistically or educationally significant.
Effects on District-Administered Standardized Tests

The formal evaluations of Success for All have relied primarily on individually-administered assessments of reading. The Woodcock and Durrell scales used in these assessments are far more accurate than district-administered tests, and are much more sensitive to real reading gains. They allow testers to hear children actually reading material of increasing difficulty and responding to questions about what they have read. The Woodcock and Durrell scales are themselves nationally standardized tests, and produce norms (e.g., percentiles, NCEs, and grade equivalents) just like any other standardized measure.

However, educators usually want to know the effects of innovative programs on the kinds of group-administered standardized tests they are usually held accountable for. District test score data can produce valid evaluations of educational programs if comparison groups are available. To obtain this information, researchers have often analyzed standardized or state criterion-referenced test data comparing students in experimental and control schools. The following sections briefly summarize findings from these types of evaluations.

Memphis, Tennessee

One of the most important independent evaluations of Success for All/Roots & Wings is a study carried out by researchers at the University of Tennessee-Knoxville for the Memphis City Schools (Sanders, Wright, Ross, & Wang, 2000). William Sanders, the architect of the Tennessee Value-Added Assessment System (TVAAS), who was not
familiar with any of the developers of the programs he evaluated, carried out the analysis. The TVAAS gives each school an expected gain, independent of school poverty levels, and compares it to actual scores on the Tennessee Comprehensive Assessment Program (TCAP). TVAAS scores above 100 indicate gains in excess of expectations; those below 100 indicate the opposite. Sanders compared TVAAS scores in 22 Memphis Success for All schools to those in (a) other reform designs, (b) matched comparison schools, and (c) all Memphis schools. Almost all of the children in the Success for All schools, and most of those in the other Memphis schools, were African-American.

Figure 3 summarizes the results for all subjects assessed. At pretest, the Success for All schools were lower than all three comparison groups on TVAAS. However, after two to four years of implementation, they performed significantly better than comparison schools, in all subjects.
Success for All schools averaged the greatest gains and highest levels on the TVAAS of six restructuring designs (Co-nect, Accelerated Schools, Audrey Cohen College, ATLAS, and Expeditionary Learning), as well as exceeding controls, averaging across all subjects. However, it is important to note that as a group, all of the schools implementing reform designs scored better on TVAAS than students in comparison groups.

The importance of the Memphis study lies in several directions. First, it is an independent evaluation that involved state assessment scores of the kind used in most state accountability systems. While the article reporting the analysis was prepared by University of Memphis researchers long associated with Success for All, the analyses themselves were carried out by William Sanders and S. Paul Wright, researchers with no connection to the project. Second, it shows carryover effects of a program focused on reading, writing, and language arts into science and social studies outcomes.

An earlier study of Success for All schools in Memphis (by Ross, Smith, & Casey, 1995) also showed positive effects on the TCAP. This was a longitudinal study of three Success for All and three control schools. On average, Success for All schools exceeded controls on TCAP reading by an effect size of +0.38 in first grade and +0.45 in second grade.

**Studies of Bilingual and ESL Adaptations of Success for All**

Several studies have examined the effects of Success for All on the achievement of limited English proficient students taught in Spanish or English (see Slavin & Madden, 1999; Slavin & Calderón, 2001). Three studies of the bilingual Spanish adaptation of Success for All found positive effects for Spanish-dominant children taught in Spanish in
comparison to children taught in Spanish in control schools. Further, Spanish-dominant
English language learners gained more than matched controls in two studies of the ESL
adaptation of Success for All. These findings provide important evidence to support the
observation that Latino students, like African-American students, gain outstandingly
from Success for All.

State of Texas

The largest study ever done to evaluate achievement outcomes of Success for All
was recently completed by Hurley, Chamberlain, Slavin, & Madden (2000). This study
also provides the best evidence regarding reductions in achievement gaps between
African-American, Latino, and White students. Using data available on the Internet,
Hurley et al. compared every school that ever used Success for All anywhere in the State

![Figure 4](TAAS Reading, Gains From Preimplementation Year to 1998, SFA Schools vs. State of Texas, All Students, Grades 3-5)

of Texas during the period 1994-1998 (n=111 schools). Gains in these schools on the
percent of students passing the Texas Assessment of Academic Skills (TAAS) reading measures were compared for grades 3-5 in the SFA schools and for the state as a whole; in each case, gains from the year before program inception to 1998 were compared. (Changes in testing procedures made 1999 scores non-comparable). Figure 4 shows the overall results, which indicates greater gains for Success for All schools than for the rest of the state for every cohort. Analyzing school means, the differences are highly significant (p < .001; ES = +0.60).

Combining across cohorts, scores of African-American students gained significantly more in SFA schools than in the state (p<.05), as did scores of Latino students (p<.05).

The TAAS has been criticized for having a ceiling effect, giving the appearance of significantly reducing the gap between minority and white students (Specher et al., 2000). The Success for All analysis shown above may reflect this problem, as Success
for All schools are far more impoverished than the state average (students receiving free lunches are 85% of those in SFA schools and 45% in the state as a whole). However, if there is a ceiling effect it exists primarily among white students, who averaged 94.1% passing in 1998. In contrast, African-American students across the state averaged 81.8% passing, and Hispanic students averaged 79.6% passing, making ceiling effects less likely. Hurley et al. (2000) compared scores for African-American and Hispanic students in Success for All schools and those for similar students in the state as a whole for 1995-1998 (years when state scores were available by ethnicity). Figures 5 and 6 show the results for African-American students.

As Figure 5 shows, African-American students in Success for All schools were closing the gap with white students much faster than were other African-American students. For example, SFA African-American students advanced from 63.3% passing in 1995 to 86.2% passing in 1998, while other African-American students only gained from 64.2% passing to 78.9% passing.
Figure 6 shows the Texas data in a different form. It shows the score gap between African-American and White students for the Success for All schools and for other African-American students in Texas, for each cohort, 1994-1997, at pretest and at posttest (1998). The figure shows that while the gap diminished for African-American students throughout Texas, it diminished more for students in the Success for All schools in every cohort. The overall gap reduction may be due in part to a ceiling effect for White students, but this could not explain the relative gap reduction, especially in the three cohorts in which initial gaps were nearly identical for African-American students in SFA schools and those in the rest of Texas.

Combining across all four cohorts (n=66 schools), the achievement gap diminished by 15 points (from 28 to 13) in the Success for All classes, but only diminished by 8 points (from 22 to 14) in the state as a whole. This difference (in school-level change scores) is statistically significant (p<.01).

Similar patterns were found for gaps between Latino and White students; gaps diminished more in SFA schools than in other Texas schools in three of four cohorts (see Hurley et al., in press). These results are summarized in Figures 7 and 8. Combining across the four cohorts (N=95 schools), the gap in Success for All schools dropped 11 percentage points, from 22 to 11, while the gap among all Texas Latino students changed only 6 percentage points, from 16 to 10.
What is particularly important about the Texas analyses is that they involve all 111 schools that ever used Success for All in Texas during 1994-1998. There is no “cherry picking,” selection of schools that happened to have more gains. Further, although the
analyses were carried out by researchers at the Success for All Foundation, they used data that are readily available on the Internet, so anyone with an Internet account and a list of schools can replicate them.

**Conclusion**

The data evaluating Success for All show the potential of one form of comprehensive school reform to reduce the gap between African-American, Latino, and White students in reading performance in the elementary grades. The evidence supports two mechanisms by which Success for All might reduce the achievement gap. First, the clear, powerful, and widely replicated effects of the program imply that if Success for All were disproportionally applied to schools serving many African-American and Latino students, students in these schools would close the gap with other students. Second, there is some evidence (from the Ft. Wayne and Texas statewide studies) suggesting that Success for All may have a *differential* effect on student achievement, affecting the performance of African-American and Latino students more than it affects the performance of White students.

Research on Success for All demonstrates that the reading achievement of children in high-poverty Title I schools is not immutable, but can be changed on a substantial scale. Obviously, quality of implementation and other factors make a difference in the outcomes obtained, but even averaging across better and worse implementations, outcomes are still strong and positive. If programs like Success for All were widely applied to Title I schools, especially to Title I schoolwide projects (schools in which at least 50% of students qualify for free lunches), it seems likely that the average reading
performance of all of America’s children would advance, and the gap between African-American, Latino, and White students would be significantly smaller than it is today. This must be an essential goal of research, development, and policy in the new millennium.
References


