

## Evaluation of Broward County Alliance of Quality Schools Project

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This article examines the evaluation of the Alliance of Quality Schools project, a 5-year project focusing on at-risk students in Broward County, Florida. The purpose of the evaluation was to determine the effect that the project had on selected academic and behavioral student indicators after its 5th year of implementation. This article focuses only on the findings related to the effect that the project has had on reading performance. Findings related to mathematics performance and student behavior can be found by reviewing the 5th-year evaluation report (Ligas, 1999).

The project's mission, based on the philosophy that all children can learn, is to help the greatest number of at-risk students achieve at their highest performance level. In addition to a strong emphasis on Direct Instruction (DI), the Alliance of Quality Schools (AQS) initiative utilizes Accelerated Reader and Computer Assisted Instruction. The project has been evaluated yearly, from the 1994-1995 school year to the 1998-1999 school year. Fifth-year evaluation findings related to student achievement indicated that the effect of the project on academic achievement for elementary and middle school students enrolled at the Alliance schools has varied by grade level and year. The highest increases in student performance occurred at the 4th-grade level for reading and at the 5th-grade level for mathematics. These increases seem to be closely aligned to the grade levels targeted for school accountability by the state of Florida.

### EVALUATION OF ALLIANCE OF QUALITY SCHOOLS

The Alliance of Quality Schools is a Broward County Public Schools (BCPS) initiative that arose from the need to provide educational support to students and staff of eligible Title I schools operating schoolwide projects. The project was dedicated to the belief that all children can learn, under a philosophy and process for continuous school improvement, as set forth in Broward County School Board Policy 1403 (The School Board of Broward County [SBBC], Florida, 1995). Under Policy

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1403, the SBBC established an accountability and school improvement system based on the performance of students and educational programs. The system supports the framework for school improvement and accountability and shares the belief that all students can learn at different rates and with different preferential styles.

### PROGRAM DESCRIPTION AND COMPONENTS

The Alliance of Quality Schools is a research-based, learner-verified academic and behavioral intervention model involving reading, spelling, writing, and mathematics. Major goals of the Alliance of Quality Schools are, (a) to provide students with high-quality instruction that will enable them to function academically at grade level; and (b) to enhance and support student achievement in all academic areas through quality staff development and research-proven, effective educational strategies and technology.

To enhance commonality of procedure throughout the school, all staff members receive training in research-based academic curriculum and classroom management. In addition, during the summer term, a 5-day preservice training occurs through the Summer Institute. This program is meant to ensure that teachers have the opportunity to apply what they have learned. The training includes specific teaching techniques, program rationale, and expected student outcomes (Colvin, 1994). In each classroom, an average of 20 min per day is allocated to classroom visitation by school support staff, including the principal, assistant principal, and other support staff members.

Teaching is facilitated through on-site curriculum facilitators, school coaches, and consultants. Curriculum facilitators ensure that teachers adhere to schedules, follow program procedures, and use the classroom libraries effectively. They also arrange, coordinate, and monitor in-service training; monitor student progress; and assist in regrouping children who may be performing academically too high or too low for their assigned group. The purpose of on-site coaching is to provide staff with feedback on program implementation, not evaluation of teacher performance.

School Coaches are external coaches assigned to two alliance schools. They go to each site 2 days per week, alternating schools on Fridays to accommodate the needs of their two assigned schools. The coaches are responsible for (a) providing on-site feedback to each staff member in their classroom at least four times each year, (b) providing on-site assistance and coaching to members of the Behavior Team (BT) in the area of effective instruction, (c) assisting the curriculum facilitator in developing ease of entry procedures for incoming students, and (d) assisting in diagnosing the needs of students who are not making adequate progress academically or behaviorally.

Also, the Alliance model calls for each Alliance school to be involved in implementing a schoolwide management plan that teaches students school routines and

expectations on an ongoing basis (Colvin, 1994; Cotton, 1990). Staff members receive specific training on the topic of managing students during the Summer Institute, with continuing staff development and on-site coaching offered throughout the school year. Each Alliance school has a BT specialist or in-house expert who provides modeling for staff working with difficult students. Students who are identified as needing additional assistance have individualized behavior plans developed by the staff.

A family component, in conjunction with other programs such as Even Start, Head Start, First Start, and Home Instructional Program for Preschool Youngsters, strives to improve students' and parents' basic skills and attitudes toward education. This component also aims to improve parenting skills, children's preliteracy and school readiness skills, and the overall quality of parent-child relationships.

### Accountability

The Alliance program provides ongoing assessment through in-program mastery checks and staff development based on the demonstrated needs of the students. This continuous assessment helps the teachers determine how well they are implementing the new approaches and identify whether students are learning at the desired rate of proficiency (Colvin, 1994). Also, yearly evaluation findings provide relevant information for program improvement.

### Curriculum

Alliance staffs assess students to ensure that they are receiving instruction in a curriculum that will enable them to perform academically on or above grade level in all subjects. All Alliance schools utilize a *unified comprehensive curriculum* approach, which includes the implementation of Direct Instruction (DI).

*DI.* DI is an intensive intervention designed to increase the amount and quality of learning by systematically developing important background knowledge, applying that knowledge, and linking it to new knowledge. DI includes activities that carefully account for individual differences in required background knowledge. In this way, all students can build hierarchies of understanding, not just those who come to school with the appropriate background knowledge (Carnine, Silbert, & Kameenui, 1997; Colvin, 1994).

DI has been documented to be successful with at-risk first, second, and third graders in increasing basic and cognitive skills, in improving student self-concept and self-esteem, and in gaining parental support (Abt Associates, 1977; Gersten &

Dimino, 1990; Haney, 1977). Research results have suggested that the instructional sequence underlying DI practices reduces the disruptive behavior of students (Nelson, Johnson, & Marchand-Martella, 1996).

*Implementation of DI.* The Alliance project uses DI as the foundational core of the program; however, it never intended to use the Reading Mastery (RM) series as the only instructional tool. In addition to using the scope and sequence of RM as the foundation, school staffs are encouraged to adapt and personalize the teaching and learning process according to students' needs. Schools have the ability to move into additional reading basals as the principal sees fit, based on data.

During the implementation of DI in the primary grades, all Grade K–2 classes start with Language for Learning (Direct Instruction System for Teaching Arithmetic and Reading Language) and RM as the reading core. Daily supplements with grade-level books occur from 60% to 80% of the time.

Schools are encouraged to have students complete RM II and transition into the reading approach that the school feels is the best fit for the student population. Some classes in Grades 3 through 5 use RM as the reading basal for all students. Some schools use a combination of RM III through VI and a reading series from Houghton Mifflin's, *Invitation to Literacy* (Cooper et al., 1996), McGraw-Hill's, *A New View* (Aoki et al., 1995), or both.

In the fall, teachers are provided staff development pertaining to the correct use of RM. Alliance coaches, all former district teachers with proven success and personalization of DI, provide the staff development. Six Alliance staff members are national staff developers in DI, as acknowledged by Science Research Associates. Elementary school Alliance Coaches spend the majority of their time with Grades 3 through 5 due to the district-wide focus on the state assessment. They also spend about 20% to 30% of their time in the primary grades.

Every 20 lessons, teachers are asked to follow up on students' fluency level and accuracy measures in RM to ensure that every student is being taught to mastery. Teachers are taught to instruct their students through the use of RM by holding to the integrity of the sequence of instruction. They are also instructed on how to personalize the teaching and learning process to meet the needs of the students. For example, if teachers feel that students need more work on sequencing, they would do a *story retell* after the lesson (in a story retell, students retell the story in sequence, identifying the beginning, middle, and end of the story).

*Junior Great Books.* The Junior Great Books reading series was added to the Alliance program in the 1998–1999 school year for Grades 3 through 8. In each Alliance school, at least one teacher at each grade level was provided staff development and materials to infuse Junior Great Books into the curriculum offerings of the school. The goal of the Junior Great Books program is for students to develop the skills, habits, and attitudes of successful readers. The program builds students' ana-

lytic and interpretive skills through the use of open-ended, interpretive questions that encourage students to explore literature from their own point of view. The program is shaped around a discussion of literary texts including a culturally diverse mix of classic and modern literary and expository pieces. The selections are age appropriate by grade level. The foundation of the Junior Great Books model is its Shared Inquiry method. Discussions under this method start with a question that challenges students to think critically about the reading assignment, develop their own interpretations, and support these interpretations with evidence from the text. Throughout the discussion, teachers nurture thoughtful dialogue by building on the students' responses. Therefore, students gain experience in communicating complex ideas and in supporting, testing, and expanding their own thoughts.

*Corrective Reading (CR).* At the beginning of each school year, middle school students are assessed in reading. Students are administered a group diagnostic test and reading program placement tests. Based on these results, academically deficient students are remediated using DI CR decoding, comprehension program and technology, or both. Some students may work in the program if they experience problems in recognizing words; others may work in the program if their reading difficulties are related to processing and understanding the meaning of ideas expressed in text. Some students may work in both decoding and comprehension programs. Each program has four levels, and placement tests are provided so students may enter at the appropriate instructional level.

*Computer-Assisted Reading Instruction.* During the 1998–1999 school year, the Alliance of Quality Schools program adopted the reading software developed by the Computer Curriculum Corporation (CCC). This model of instructional technology components includes multiple measures of assessment, implementation plans, professional development, and ongoing support. The philosophy behind the CCC model is that students will achieve greater results when they (a) spend time on the content deemed important by state and local curriculum standards and testing objectives; (b) focus their efforts on concepts and skills that are organized into homogeneous strands, moving fluidly between strands as appropriate; (c) are placed at an appropriate level to begin the course work, based on their performance in an initial sequence of sessions; (d) can move forward at their own pace when their performance in a particular area satisfies criteria that take into account the fact that the learning process is dynamic; (e) receive tutoring intervention automatically, returning to prerequisite content when the pattern of their responses indicates that the students are having difficulty performing; and (f) are automatically assisted in retaining new concepts that have been learned.

*Accelerated Reader.* The Accelerated Reader program was added to each Alliance elementary school during October 1997. The Accelerated Reader is a reading computer software system with the following three-step process that supports increased reading achievement:

1. Students independently select books from more than 11,000 outstanding and popular titles on the Accelerated Reader book lists. The titles range in reading level from first grade through high school.
2. Students read the book that they have selected at their own pace.
3. After reading a book independently, students log on to a computer and take a test on the book that they have completed. Each test consists of 5, 10, or 20 multiple-choice questions that are carefully designed to verify that the student has read the book. With the test completed, the computer gives instant feedback on the number of questions the student has answered correctly, and awards reading points based on the book's length, reading level, and number of correct responses.

Teachers are able to print out a summary of the number of books read, tests passed and with what performance level, and the reading level of the books. In addition, at-risk reports are produced indicating those students that have read books that are either too easy or too difficult, based on comprehension errors. The software also allows teachers to create their own tests.

The Alliance program has added a systematic approach to provide feedback on the number and types of books read by the students along with a reading comprehension measure to gauge the students' knowledge level based on reading certain books. All of these books used to measure reading comprehension have been made available to students at their local school library. The program has also included a daily review of mathematics concepts and applications for the students, combined with additional training and materials provided for each Grade 5 teacher.

*Achieving High Standards in Writing.* Starting in the 1997–1998 school year, Alliance staff implemented a developmental, systematic, cooperative approach for learning to write and writing to learn. Following the procedures developed by Rothstein and Gess (1995), the Alliance staff developed a scope and sequence for writing instruction in Grades K–5. In addition, Gess acted as a consultant and provided on-site modeling of this approach at each of the Alliance elementary schools during the 1997–1998 school year. Based on the instructional needs of students, the writing process that the Alliance program implemented moves from high structure support (frames and outlines) to student-initiated writing responses.

*Curriculum Supervision.* Alliance of Quality Schools staff worked with Bondi as a consultant to develop and implement a Deliberated Curriculum model

(Wiles & Bondi, 1996). This curriculum defined essential skills that would be taught on a daily basis at each grade level. The skills were aligned to the instructional needs of the students. Students' progress in mastering these skills was reflected in the lesson plans. A reteaching sequence of reading, writing, and mathematics took place based on this highly diagnostic and prescriptive approach.

### RELATED EVALUATION FINDINGS

A July 1996 BCPS evaluation of the Alliance program (Younkin, 1996) concluded that analyses of performance measures (such as discipline records and scores on Informal Reading Inventory, Florida Writes, and Stanford Achievement Test) indicated a significant increase in the performance levels of the students in the Alliance schools at the end of its second year of implementation.

The following school year, a second evaluation of the Alliance program (Ligas, 1997a) revealed these findings: (a) increased achievement for alliance students on the Stanford Achievement Test—Eighth Edition (SAT8) Total Reading and Total Mathematics subtests over 1995–1996 levels, (b) increased performance on the Florida Writing Assessment, and (c) decreased number of disciplinary referrals.

Also, a comparison of fifth-grade Alliance and district students suggested that the gap between Alliance and other district schools was closing in every academic area. Recommendations resulting from the 1996–1997 evaluation were to (a) provide increased support to Alliance schools with a high number of, or an increase in, student office referrals during the past 2 years; (b) continue to expand the Alliance of Quality Schools to additional elementary and middle schools; and (c) enhance the elements of the Alliance program to strengthen reading and mathematics achievement in Grade 5.

Students in need of reading remediation at two Title I middle schools had received Sylvan services from 1995–1996 to 1997–1998. Because of this, the Alliance program was not offered at these two middle schools in 1997–1998. Although evaluations of the Sylvan program conducted by the Research and Evaluation Department (Hodges, 1996; Ligas, 1997b; Ligas, 1998b) demonstrated small, relative effects on reading comprehension, they also revealed that student performance expectations did not match those contractually agreed on by Sylvan Learning Systems, Inc., and the SBBC. Therefore, the Sylvan program was discontinued at these two middle schools.

Findings of the 1998 evaluation of the Alliance program (Ligas, 1998a) revealed that the impact of the project on academic achievement for elementary and middle school students varied by grade level and year. The findings also indicated that student behavior had improved, with a decrease in the number of referrals at the elementary school level and in incident data and disciplinary actions at the middle school level. The evaluation also revealed that achievement gains in Reading Comprehension (SAT8) for students participating in the CR program at Alli-

ance middle schools surpassed those registered for both Sylvan students and comparable students district wide. As a result of this evaluation, the Alliance program was expanded to three other middle schools, including the two schools that had implemented the Sylvan program. To strengthen the Alliance program at the middle school level, students in all grades received "daily openers" in reading comprehension and mathematics, in addition to test preparation materials. Daily openers are short-time educational activities of about 5 to 10 min done at the beginning of the school day.

### PROJECT IMPLEMENTATION

On April 5, 1994, the SBBC approved the Alliance of Quality Schools as a school improvement program. Shortly thereafter, planning and implementation activities involving teachers, school-based and district administrators, parents, and community members began. These activities included a demonstration for parents, teachers, administrators, and community members regarding DI and technology, as well as a detailed explanation of the Alliance concept.

At all schoolwide Title I schools, staff members were given a detailed implementation concept of the Alliance of Quality Schools model and asked to vote on program acceptance. An 80% faculty agreement was required for the school to be considered as an implementation site. This ensured that teachers and administrators had a commitment to the Alliance program and its goals. To determine which schools displayed the greatest need for the Alliance approach, the following four factors were analyzed: (a) the number of students on free and reduced-price meals, (b) the mobility rate, (c) the number of students above age for grade, and (d) the results on the Stanford Achievement Tests.

Each of the four criteria was given equal weighting, and magnet schools were excluded from consideration. Ten elementary schools were accepted as alliance partners during the first year. In 1995–1996, 13 elementary schools were added to the project. In the third year (1996–1997), 6 schools were added, for a total of 29. In 1997–1998, the district's fourth year of Alliance, 6 more schools were added, 3 at the elementary level, and, for the first time, 3 at the middle school level. In 1998–1999, 5 more schools were added, 2 at the elementary level and 3 at the middle school level. These additions raised the Alliance partner total to 40 (34 elementary and 6 middle) schools.

### COST IMPACT

During the first year implementation of the Alliance program, a formative evaluation report (Knight, 1995) estimated that, as of February 1995, the Alliance project served 9,314 students enrolled in 10 elementary schools with a budget of



\$3,347,006. Ninety percent of the Alliance coordinator's salary and benefits were funded by Title I. Funding for a curriculum facilitator and a home-school parent partner for each Alliance school also came from Title I. The number of elementary schools, and therefore, the number of students served, had progressively increased during the last 5 years, with 34 elementary schools and 26,226 students served during the 1998-1999 school year. However, the total allocation for each year remained the same. This translated into a reduction of per student cost from \$163 in 1995-1996 to \$114 in 1998-1999.

Total costs beyond Full-Time Equivalent (FTE) funding for the Alliance project for middle schools during the 1997-1998 school year was \$403,434. In the 1998-1999 school year, funding of \$511,172 for the Alliance middle schools was provided by Title I. That year, with the addition of three middle schools, the number of Alliance students at this level almost doubled, from 4,569 students in 1997-1998 to 8,746 students in 1998-1999. This translated into a reduction in cost beyond FTE funding of \$58 per Alliance middle student for 1998-1999, down from \$88 per alliance middle student in 1997-1998.

## PURPOSE OF THE EVALUATION

The purpose of the evaluation was to determine the effect that the Alliance of Quality Schools project had on selected academic and behavioral student indicators after its fifth year of implementation.

The evaluation also examined how Alliance middle school students who participated in the CR program compared, in terms of reading comprehension achievement, with other Title I middle school students. Finally, the evaluation addressed the effect of the CCC software program on the reading performance of a selected group of CR students.

## EVALUATION QUESTIONS

The evaluation posed several questions:

1. What was the impact of the Alliance of Quality Schools project on student academic performance during the 1998-1999 school year?
2. What was the effect of the Alliance of Quality Schools project on academic performance for students who participated in the Alliance project for the last 5 years, when compared to similar district students who did not participate in the Alliance project during the same period?
3. How did students who participated in the CR program of the Alliance of Quality Schools project compare (in terms of SAT8 Reading Comprehension

Normal Curve Equivalent [NCE] gain scores) with other Title I students who did not participate in this program?

4. How did middle school students who participated in the CR program and used the CCC software for 12 hr or more compare, in terms of SAT8 Reading Comprehension scores, with other CR students at the same middle school who did not use the CCC software or who used it for less than 5 hr?

## METHOD

The evaluation utilized a time series design. This design allowed measurement of the project's impact on the achievement of the students enrolled in Alliance schools across 5 years of implementation.

### Participants

*Elementary school level.* The distribution of race and ethnicity for all elementary students enrolled in the 34 Alliance schools during the 1998–1999 school year shows that the majority of students enrolled were identified as Black (77.8%), followed by Hispanic (11.3%), and White (9.2%). The Asian, Native American, and multiracial categories each comprised less than 1% of the enrolled Alliance population. A similar race and ethnic distribution was found for the 1994–1995 to 1998–1999 school years in the participating Alliance elementary schools, as shown in Figure 1. There has been a slight decrease in the proportion of Black students as well as a slight increase in the proportion of Hispanic and White students enrolled in Alliance schools since the program's inception in the 1994–1995 school year.

Table 1 illustrates the composition of the Alliance schools in terms of exceptional student education (ESE) status from the 1994–1995 to 1998–1999 school years. For purposes of the evaluation, gifted students, although part of the ESE group, were included in the non-ESE status category. There has been a very slight increase in the proportion of ESE students enrolled in Alliance schools during the last 5 years. Table 1 also shows the composition of the Alliance elementary schools in terms of free or reduced lunch (FRL) status from 1994–1995 to 1998–1999. In 1994–1995, the 10 original Alliance schools had 84% of their students participating in FRL fees. This figure decreased slightly in 1995–1996 to 79.9%, became stable at 82% for the 1996–1997 and 1997–1998 school years, and increased back to 84% during the 1998–1999 school year. The distribution of students in alliance schools classified as limited English proficient (LEP) students is also illustrated in Table 1. The proportion of students classified as LEP remained the same (12.9%) for the 1994–1995 and 1995–1996 school years. However, this proportion increased slightly for the 1996–1997 school year (14.2%) and for the 1997–1998 school year (14.5%), then decreased slightly (13.7%) during the 1998–1999 school year.

*Middle school level.* The race and ethnicity distribution for the three Alliance schools at the middle school level in the 1997–1998 school year is presented in Figure 2. There was a slight decrease in the proportion of White students and students categorized in the “other” race and ethnic group. Hispanic student enrollment in Alliance middle schools remained stable from 1997–1998 to 1998–1999.

Table 2 illustrates the ESE status for Alliance middle schools, with 16% of enrolled students identified as having an ESE status in each of the 2 years. Sixty-five percent of all students enrolled at Alliance middle schools in 1997–1998 and 64% of

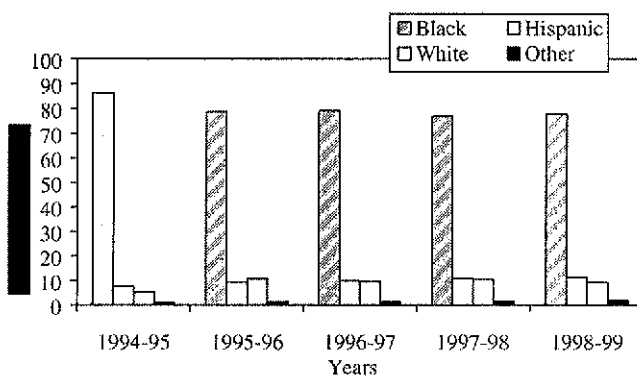


FIGURE 1 Enrollment in Alliance elementary schools by race and ethnicity, 1994–1995 to 1998–1999.

TABLE 1  
Enrollment in Alliance Elementary Schools by ESE, FRL, and LEP Status, 1994–1995 to 1998–1999

Status	1994–1995		1995–1996		1997–1997		1997–1998		1998–1999	
	n	%	n	%	n	%	n	%	n	%
ESE										
ESE	1,248	13.7	3,063	14.9	3,551	15.1	4,487	17.2	4,085	15.6
Non-ESE	7,881	86.3	17,497	85.1	19,897	84.9	21,562	82.8	22,141	84.4
FRL										
FRL	7,640	83.7	16,425	79.9	19,194	81.9	21,320	81.8	22,060	84.1
Non-FRL	1,489	16.3	4,135	20.1	4,254	18.1	4,729	18.2	4,166	15.9
LEP										
LEP	1,182	12.9	2,651	12.9	3,337	14.2	3,773	14.5	3,597	13.7
Non-LEP	7,947	87.1	17,909	87.1	20,111	85.8	22,276	85.5	22,629	86.3

Note. ESE = exceptional student education; FRL = free or reduced lunch; LEP = limited English proficiency.

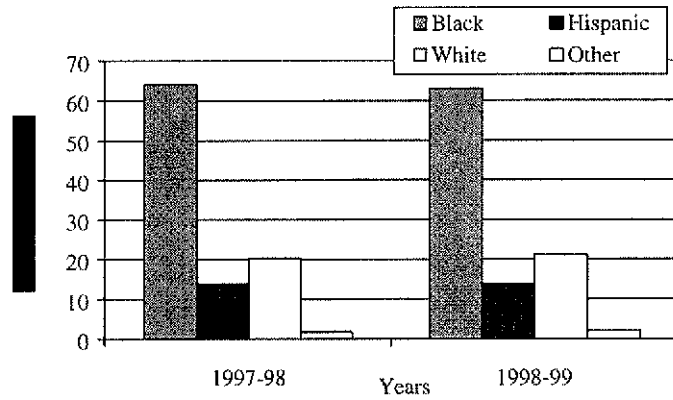


FIGURE 2 Enrollment in Alliance middle schools by race and ethnicity, 1997–1998 to 1998–1999.

TABLE 2  
Enrollment in Alliance Middle Schools by ESE, FRL, and LEP Status, 1997–1998, 1998–1999

Status	1997–1998		1998–1999	
	n	%	n	%
ESE				
ESE	710	15.5	1,392	15.9
Non-ESE	3,859	84.5	7,354	84.1
FRL				
FRL	2,981	65.2	5,552	63.5
Non-FRL	1,588	34.8	3,194	36.5
LEP				
LEP	225	4.9	717	8.2
Non-LEP	4,344	95.1	8,029	91.8

Note. ESE = exceptional student education; FRL = free or reduced lunch; LEP = limited English proficiency.

students enrolled at Alliance middle schools in 1998–1999 received FRL services. The proportion of students identified as LEP in alliance middle schools increased from about 5% in 1997–1998 to 8.2% in 1998–1999.

### RESULTS

What was the impact of the Alliance of Quality Schools project on student academic performance for the 1998–1999 school year? Academic performance of students en-

rolled in Alliance schools was analyzed by comparing 1997–1998 and 1998–1999 Reading Comprehension and Mathematics applications subtest scores on the SAT8 for Grades 3–8. Only results on reading performance are presented here.

1. All students enrolled in the BCPS in Grades 3–8 during 1998–1999, and who took the SAT8 during the 1998 and 1999 spring administrations, were included in this analysis. Students who met the aforementioned criteria and were enrolled in 1 of the 34 Alliance elementary and 6 Alliance middle schools for the 1998–1999 school year were identified. Their scores for both years on the Reading Comprehension subtest of the SAT8 were compared with the scores of district elementary students enrolled in the same grade. Percentile scores for the Reading Comprehension subtest on the SAT8 were transformed into NCE scores and then averaged to allow for statistical analyses of means.

Table 3 presents the mean NCE scores and standard deviations for Alliance and district students on the 1998 and 1999 SAT8 Reading Comprehension subtest by grade level. As Table 3 shows, Alliance students in Grade 4 achieved the highest increase in NCE score gains (7.8) for this subtest of all Alliance grade subgroups. This increase was also higher than the one achieved by Grade 4 district students (6.7) over the same 2-year period. Both of these groups registered medium standardized effect sizes (.45 for the Alliance group and .32 for district group).

Table 3 also shows that Alliance students in Grades 7 and 8 achieved higher gains in average Reading Comprehension NCE scores (2.0 and 2.2, respectively) than did their district counterparts, who registered increases of 1.2 and .6 points, respectively, at the same grade levels. Also, Grades 3, 5, and 6 registered the highest losses (–1.9, –.9, and –.9) compared to the changes registered for other students in the district (–.4, –.5, and .5) at their respective grade levels. All of the standardized effect sizes for these groups were negligible.

Overall, in the 1998–1999 school year, Alliance students in Grades 4, 7, and 8 demonstrated increases in average scores in reading comprehension from their 1997–1998 levels. Third, fifth, and sixth graders showed decreases in the reading comprehension area.

2. What was the effect of the Alliance of Quality Schools project on student academic performance for students who participated in the Alliance project for the last 5 years, when compared to similar district students who did not participate in the Alliance project? Two groups of fifth-grade students and two groups of sixth-grade students were identified to answer this question. One of the fifth-grade groups was comprised of fifth-grade students enrolled in the 10 elementary schools that started Alliance participation in 1994–1995 and the 13 schools that started Alliance participation in 1995–1996. These students were

TABLE 3  
Means and Standard Deviations on Stanford Achievement Test—Eighth Edition Reading Comprehension Normal Curve Equivalents for Alliance and District Groups by Grade Level, 1998–1999

Groups	RC 1998		RC 1999		Differences in Means	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Alliance						
Grade 3 ( <i>n</i> = 3,521)	38.38	19.09	36.53	18.00	-1.85	.10
Grade 4 ( <i>n</i> = 3,478)	33.90	17.59	41.74	17.88	7.84	.45
Grade 5 ( <i>n</i> = 3,342)	40.18	17.08	39.25	17.44	-0.93	.05
Grade 6 ( <i>n</i> = 2,387)	41.04	18.83	40.14	19.80	-0.90	.05
Grade 7 ( <i>n</i> = 2,309)	40.45	20.40	42.45	20.35	2.00	.10
Grade 8 ( <i>n</i> = 2,342)	40.82	19.93	42.99	22.42	2.17	.11
District						
Grade 3 ( <i>n</i> = 12,201)	48.67	20.54	48.28	21.16	-0.39	.02
Grade 4 ( <i>n</i> = 12,537)	46.70	20.89	53.36	19.55	6.66	.32
Grade 5 ( <i>n</i> = 12,438)	52.78	20.08	52.27	19.55	-0.51	.03
Grade 6 ( <i>n</i> = 12,691)	49.36	19.83	49.90	21.53	0.54	.03
Grade 7 ( <i>n</i> = 12,305)	50.32	21.55	51.50	20.63	1.18	.05
Grade 8 ( <i>n</i> = 11,820)	52.27	20.51	52.82	22.37	0.55	.03

Note. RC = reading comprehension.

also enrolled at the same Alliance school since the 1994–1995 school year. A weighted sampling process was used to identify a comparison group of fifth-grade students who attended the same Non-Alliance district elementary school for the last 3 years. This sampling process guaranteed that the comparison group was similar to the Alliance participants in terms of their race and ethnicity, ESE status, FRL status, and LEP status. Mobility and retention factors were controlled by identifying students in each group who were enrolled in the same school as second graders in 1995–1996 and who were promoted regularly from year to year. Percentile scores for the Reading Comprehension subtest on the SAT8 were transformed into NCE scores and then averaged to allow for inferential statistical tests.

Figure 3 and Table 4 illustrate the achievement of Alliance and district fifth graders in Reading Comprehension NCE scores for the 1995–1996, 1996–1997, 1997–1998, and 1998–1999 school years. As shown in Figure 3, the gap between the Alliance and the district groups in 1995–1996 was .8 NCE points in favor of the district group. This difference decreased to .7 NCE points in 1996–1997. In 1997–1998, the gap widened to a difference of 1.9 NCE points; and in 1998–1999, the gap became even wider, with a difference of 2.5 NCE points in favor of the district group. A repeated measures multivariate analysis of variance (MANOVA)

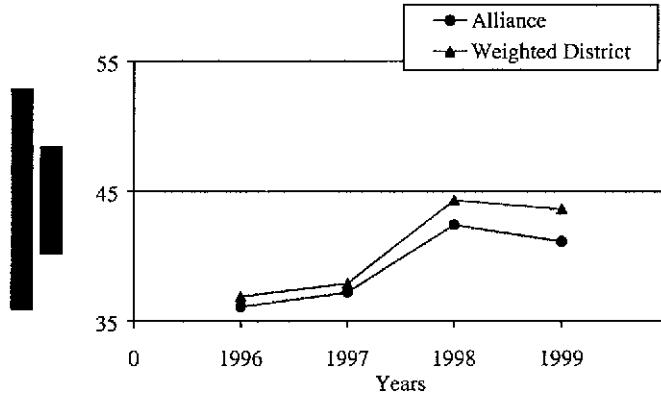


FIGURE 3 Stanford Achievement Test–Eighth Edition Reading Comprehension Normal Curve Equivalent means for 1998–1999 fifth graders by group and year.

TABLE 4  
Means and Standard Deviations on Stanford Achievement Test–Eight Edition Reading Comprehension Normal Curve Equivalent Scores for Grade 5, by Group × Year

Groups	1995–1996		1996–1997		1997–1998		1998–1999	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Alliance	36.1	19.0	37.2	17.9	42.4	16.4	41.1	17.1
Weighted district	36.9	19.6	37.9	18.3	44.3	18.0	43.6	17.1

Note. *n* = 1,143 (for each group).

with repeated measures in one factor was performed to identify any statistically significant differences between the results for the Alliance and the district comparison groups on the SAT8 Reading Comprehension subtest. The repeated measures MANOVA test revealed no significant interaction effect of Group × Year,  $F(3, 6,852) = 5.22, p < .001, \eta^2 = .06$ . Also, a significant difference was revealed for fifth-grade student performance in reading based on year,  $F(3, 6,852) = 301.88, p < .001, \eta^2 = .26$ .

In addition to the previous analyses, two groups of sixth-grade students were identified. One of the sixth-grade groups was comprised of sixth-grade students who were enrolled in the 10 elementary schools that started Alliance participation in 1994–1995 and the 13 schools that started Alliance participation in 1995–1996. These students had attended the same Alliance elementary school for the 1995–1996 to 1996–1997 school years as well as attending one of the six Alliance middle schools in 1998–1999 (AQS, 1996–1999).

The comparison group of sixth graders consisted of those students who attended the same Non-Alliance district elementary school in the third, fourth, and fifth grades, as well as a Non-Alliance district middle school in sixth grade (Non-AQS, 1996–1999). For these analyses, a weighted sampling process was also used to identify a comparison group similar to the Alliance participants in terms of their race and ethnicity, ESE status, FRL status, and LEP status. Mobility and retention factors were controlled by identifying students in each group who were enrolled in the same school as third graders in 1995–1996 and who were promoted regularly from year to year.

Figure 4 and Table 5 present a comparison of reading comprehension NCE scores for the two groups starting in 1995–1996. The gap between the Alliance group and the Non-Alliance district group was then 2.6 NCE points in favor of the Non-Alliance district group. The gap decreased to 1.4 NCE points in 1996–1997 but in-

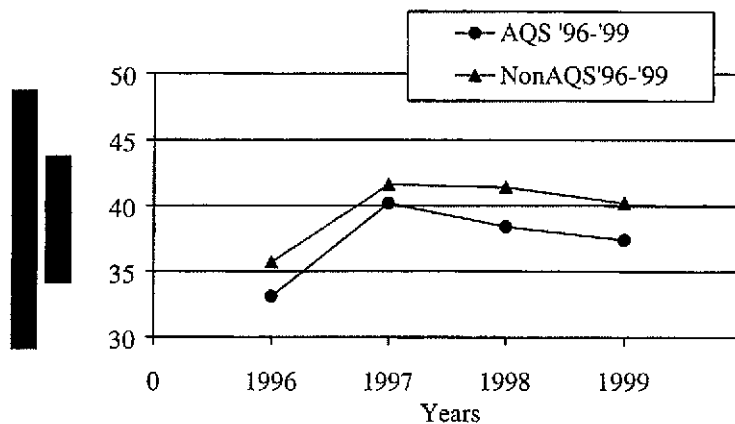


FIGURE 4 Stanford Achievement Test–Eighth Edition Reading Comprehension Normal Curve Equivalent means for 1998–1999 sixth graders by group and year.

TABLE 5  
Means and Standard Deviations on Stanford Achievement Test–Eighth Edition Reading Comprehension NCE Scores for Grade 6, by Group  $\times$  Year

Groups	1995–1996		1996–1997		1997–1998		1998–1999	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
AQS 96–99	33.1	17.6	40.2	16.3	38.4	16.9	37.4	18.0
Non-AQS 96–99	35.7	18.8	41.6	17.1	41.4	17.5	40.2	18.6

Note.  $n = 549$  (for each group); AQS = Alliance group; Non-AQS = Non-Alliance group.



creased again to 3.0 in 1997–1998. In 1998–1999, there was a slight decrease in the gap for a difference of 2.8 NCE points in favor of the Non-Alliance district group.

A repeated measures MANOVA with repeated measures in one factor was performed to identify any statistically significant differences between the results for the Alliance and the district comparison groups on the SAT8 Reading Comprehension subtest. The repeated measures MANOVA test revealed a significant interaction effect of Group  $\times$  Year,  $F(3, 3,288) = 1.84$ , *ns*. However, a significant difference was revealed for student performance in reading based on year,  $F(3, 3,288) = 113.29$ ,  $p < .001$ ,  $\eta^2 = .20$ .

3. How did students who participated in the CR program of the Alliance of Quality Schools project compare (in terms of SAT8 reading comprehension NCE gain scores) with other Title I students who did not participate in this program? To answer this question, four groups of students were identified, as follows:

1. The Alliance CR group for 1998 (CR98) was comprised of 57 Alliance middle school students who received 35 hr or more of instruction in the CR program at Lauderhill, Perry, or Rickards middle schools, only in the 1997–1998 school year.
2. The Alliance CR group for 1999 (CR99) was comprised of 543 Alliance middle school students who received 35 hr or more of instruction in the CR program at Crystal Lake, Lauderdale Lakes, Lauderhill, New River, Perry, or Rickards middle schools, only in the 1998–1999 school year.
3. The Alliance CR98 and CR99 groups were comprised of 40 Alliance middle school students who received 35 hr or more of instruction in the CR program at Lauderhill, Perry, or Rickards in the 1997–1998 school years and at Crystal Lake, Lauderdale Lakes, Lauderhill, New River, Perry, or Rickards middle schools in the 1998–1999 school years.
4. A Title I comparison group of 10,840 Title I middle school students (non-CR) was comprised of Title I students who did not attend Alliance middle schools in the 1998–1999 school years.

All members of each group took the SAT8 Reading Comprehension subtest during the 1997, 1998, and 1999 test administrations. Figure 5 and Table 6 present a comparison of Reading Comprehension NCE scores for the four groups from 1997–1999. As Figure 5 illustrates, Alliance students who participated in the CR program for 2 years (CR98 and CR99), although the lowest performing group in 1997, achieved an average of 1.7 NCE points increase in reading comprehension scores during their first year of participation and a 2.0 NCE increase during their second year. Alliance students who participated in the CR program only in 1998–1999 (CR99) also achieved an average increase of 2.0 NCE points in reading comprehension. Alliance students who had participated in CR only during the 1997–1998 school year (CR98) had achieved a .6 NCE points increase in 1998 over their 1997

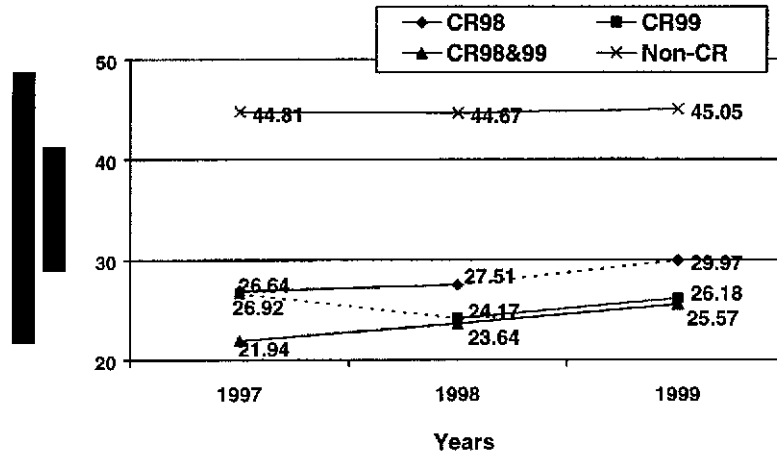


FIGURE 5 Stanford Achievement Test–Eighth Edition Reading Comprehension Normal Curve Equivalent means for corrective reading students by group and year.

TABLE 6  
Means and Standard Deviations on Stanford Achievement Test–Eighth Edition Reading Comprehension Normal Curve Equivalent Scores for Corrective Reading Students, by Group × Year

Groups	n	1996–1997		1997–1998		1998–1999	
		M	SD	M	SD	M	SD
CR (1998)	57	26.9	13.0	27.5	12.1	29.9	15.5
CR (1999)	543	26.6	12.3	24.2	11.8	26.2	14.2
CR (1998 and 1999)	40	21.9	10.0	23.6	12.3	25.6	12.4
Non-CR	10,840	44.8	19.5	44.7	19.9	45.1	20.8

Note. CR = corrective reading.

scores; however, although they did not participate in the program in 1998–1999, they registered the highest gain in reading comprehension scores this year with a 2.4 NCE points increase.

4. How did middle school students who participated in the CR program and used the CCC software for 12 hr or more compare, in terms of SAT8 reading comprehension scores, with other CR students at the same middle school who did not use the CCC software or who used it for less than 5 hr?

To answer this question, two groups of students were identified, as follows:

1. The Alliance CR CCC group (CCC1) was comprised of 99 Alliance middle school students who used the CCC software for 12 hr or more, in addition to

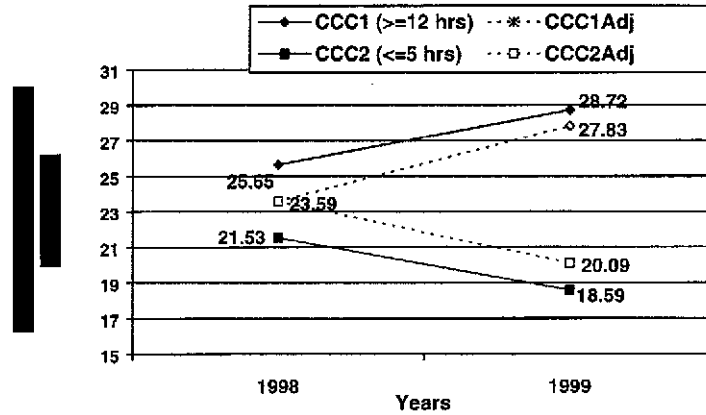


FIGURE 6 Stanford Achievement Test–Eighth Edition Reading Comprehension Normal Curve Equivalent means for two groups of corrective reading students at the same Alliance middle school.

TABLE 7  
Adjusted Stanford Achievement Test–Eighth Edition Reading Comprehension Normal Curve Equivalent Means for Two Groups of CCC Corrective Reading Students at the Same Alliance Middle School

Groups	n	1997–1998		1998–1999		Adjusted Mean
		M	SD	M	SD	
CCC1 <sup>a</sup>	99	25.65	9.8	28.72	11.5	27.83
CCC2 <sup>b</sup>	59	21.53	10.7	18.59	10.2	20.09

Note. CCC = Computer Curriculum Corporation.  
<sup>a</sup>≥ 12 hr. <sup>b</sup>≤ 5 hr.

receiving 35 hr or more of instruction in the CR program at Lauderhill before the 1999 SAT8 administration.

- The Alliance CR CCC group (CCC2) was comprised of 59 Alliance middle school students who did not use the CCC software or used it for 5 hr or less, in addition to receiving 35 hr or more of instruction in the CR program at Lauderhill before the 1999 SAT8 administration.

All members of each group took the SAT8 Reading Comprehension subtest during the 1998 and 1999 test administrations. Figure 6 and Table 7 present a comparison of Reading Comprehension NCE scores for the two groups from 1998–1999. As Figure 6 illustrates, there was an initial difference in 1998 Reading Comprehension NCE scores between the two groups (4.12 NCE points) in

favor of the CCC1 group. Because of these initial differences, an analysis of covariance (ANCOVA) was performed. The ANCOVA procedure allowed for the comparison of the 1999 mean scores for both groups, after adjusting for the initial differences in 1998 scores. That is, it allowed for the answer to the following question: If both groups had started at the same level in 1998, what would their performance be in 1999? Table 7 shows what the average NCE scores for 1999 would be if both groups had similar NCE scores in 1998. The difference in the average 1999 scores after adjusting for initial differences in average 1998 scores was 7.74 NCE points. This difference was statistically significant at the .001 level,  $F(1, 155) = 24.3, p < .001$ .

### SUMMARY

Since 1995, BCPS began implementing the Alliance of Quality Schools project in an effort to assist those elementary students most at risk of failing to achieve to their highest potential. The application of research-based methods (i.e., in the areas of curriculum, behavioral intervention, and leadership), as well as the commitment displayed by school staff, parents, and community from each participating school, has brought about positive results for the students served by this initiative.

The evaluation of the impact of the Alliance of Quality Schools project on student academic performance for the 1998–1999 school revealed that, overall, in the 1998–1999 school year, Alliance students in Grades 4, 7, and 8 demonstrated increases in average scores in SAT8 Reading Comprehension from their 1997–1998 levels. Third, fifth, and sixth graders showed decreases in the reading comprehension area.

This evaluation also investigated the long-term effect of the Alliance of Quality Schools project on student academic performance for students who had participated in the Alliance project for the last 4 or 5 years.

When comparing fifth-grade Alliance students who participated in the Alliance project for the last 4 years to a weighted comparison group of district fifth graders, Alliance students were very close to those of the weighted comparison group in average Reading Comprehension NCE scores during second and third grade. In fourth grade, both groups improved substantially, with an increase of 5.2 NCE points for the Alliance group and of 6.4 NCE points for the district group. The performance of the two groups decreased again in fifth grade, with the Alliance group registering the largest decline. This meant an increase in the gap in reading comprehension between the two groups from 1.9 NCE points in 1998 to 2.5 NCE points in 1999 in favor of the comparison group.

Overall, at the elementary school level, the results show that the greatest increases in reading performance occurred at the fourth-grade level. These increases seemed to be closely aligned to the grade levels targeted for school accountability by the state of Florida during the 1998–1999 school year.