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A study of Reading First implementation and literacy performance of students in kindergarten through fifth grade in Lancaster School District

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A STUDY OF READING FIRST IMPLEMENTATION AND LITERACY PERFORMANCE OF STUDENTS IN KINDERGARTEN THROUGH FIFTH GRADE IN LANCASTER SCHOOL DISTRICT

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This dissertation, written by

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under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

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DEDICATION

To my family and friends,

Since this journey began,

You have listened, supported, and encouraged me.

Understanding my desire,

To educate and inspire,

I thank God for finding me worthy.

Though there was laughter and tears,

frustration and fears,

Wanda Combs Moore taught me to "*Never, Never Give Up!*"

I love and appreciate you all. Thank you.

Special thanks to Dr. Linda Purrington for her encouragement and mentoring.

I would like to also thank my wonderful husband, Lionel Bowers, for making this journey with me. I will always be grateful for his support, patience, and unwavering love.

In loving memory of

Australia Ferguson Melvin Irvin Wilbert Moore, Sr.

VITA

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ABSTRACT

This study examined elementary student literacy performance in Lancaster School District in kindergarten through 5th grades for 6 elementary schools implementing the Reading First program and 6 elementary schools not implementing Reading First. Subgroup data for English Language Learners, Hispanic, and African American students was closely examined and compared with the literacy performance data of white students to determine whether implementation of the Reading First program has narrowed the achievement gap. The study also explored the relationship, if any, between the level of Reading First program implementation (RFII) and literacy achievement of students as measured by the English Language Arts (ELA) California Standards Test (CST) and the Reading First Achievement Index (RFAI).

The study was quantitative in approach, multiple methods in design, and was conducted in 2 phases. Phase 1 was comparative and descriptive and explored observable trends in student achievement between Reading First and non-Reading First schools. Phase 2 was correlational and examined potential relationships between implementation of the Reading First program and student achievement.

The study found that Reading First schools experienced greater growth in ELA student achievement than non-Reading First schools. In addition, the study revealed that implementation of Reading First strategies is likely to impact positively ELA CST student achievement outcomes for English Language Learners, African American, and Hispanic students in 2nd through 5th grades.

The study found no correlation between the level of Reading First implementation and ELA CST student achievement based on RFII and CST data collected between 2005

and 2009. However, there was a statistically significant correlation between the level of Reading First implementation and the RFAI for the district.

The study concluded that overall growth in literacy achievement of students in kindergarten through 5th grade did occur in the schools in which the essential components of the Reading First program were implemented with fidelity. It is, therefore, recommended that school districts work to develop district-wide literacy programs that utilize a comprehensive curriculum, offer coaching and structured professional development opportunities for teachers and administrators, and support student-centered collaboration that monitors student learning based on data.

Chapter 1. Introduction to the Study

Background

The focus on reading and literacy in the United States dates to as early as the one-room schoolhouse in the late 19th century. Today, literacy is more important than ever and has been cited as a foundational life skill. R. M. Hauser, Edley, Koenig, and Elliott (2005) wrote:

> Literacy skills are critical both for individuals' functioning and for a well-functioning society. Literacy has an impact on a nation's economic status, the well-being of its citizens, the capabilities of its workforce, and its ability to compete in a global society. Deficiencies in literacy and mismatches between the skills of citizens and the needs of an economy can have serious repercussions. (p. 1)

When literacy development is not fully recognized at an early age, there are predictable, and unintended, consequences that may be seen in children as early as middle school (Edelsky, 2006). A child's ability, or inability, to read impacts numerous aspects of his or her life through adulthood, including success in school, access to higher level education and employment opportunities, capacity to compete successfully in a global economy, and his or her ability to contribute fully in his or her community and society in a meaningful way (Alliance for Excellent Education, 2004). As alarming as it may sound, Morsey (1994) reported, "Over 100 million school age children do not attend school" (p. xi), and as of 1990, as many as 1000 million people in the world were illiterate. Researchers can only speculate on the long-term economic, political, and social implications of illiteracy in the United States, but agree that, left unaddressed, illiteracy

will increase power to the elitists, significantly widen the divide between rich and poor, and increase the racial gap in learning and employment opportunities (Lauder, Brown, Dillabough, & Halsey, 2006; Morsey, 1994; Tatum, 2009; Thernstrom & Thernstrom, 2003).

Public education has been forced to undergo many changes since the days of the rural one-room schoolhouse, and is continually adapting to address concerns over literacy-illiteracy rates in an effort to meet the academic, economic, and social needs of each new generation of learners. Twenty-first century learners come to school with interests, personal experiences, and basic skills that differ greatly than those of students in the 19th century. Twenty-first century schools are institutions of global learning that extend far beyond the classroom or the school building and offer students access to a world of information. Teachers find that they must shift from standing and delivering information to facilitating the development of critical thinking skills; skills that help students turn the wealth of information available to them into knowledge (Twenty-First Century Schools, 2010). Educators are tasked with making learning meaningful and relevant to meet the unique learning needs, styles, and levels of preparedness of their students, necessitating changes in curriculum, technology, standards, and instructional strategies.

Since the 19th century, the pendulum in education has swung from textbook-driven instruction to research-driven instruction, time-based learning to outcome-based learning, and teacher-centered practice to student-centered learning (Twenty-First Century Schools, 2010). In spite of the many changes in education throughout the

decades, reading continues to be recognized as a critical attribute of 21st century learning standards (American Association of School Librarians, 2010).

As public education has changed throughout the last 2 centuries, so have assessments and their purpose. In the 19th century, reading, writing, and mathematics assessments were used primarily to provide students and parents with feedback on a student's progress in meeting the teacher's goals, usually as compared to other students in the class (Brandt, 2000). Over time, external assessments began to be used by institutions of higher learning as part of their admission criteria (U.S. Office of Technology Assessment, 1992). However, this, coupled with high tuition fees, significantly limited access to higher education to affluent families (Brandt, 2000). As government funding for public education increased, which ensured access for all children, the focus on school and district effectiveness heightened and external accountability increased. Yearly assessments are now part of extensive large-scale standardized testing programs used to measure student achievement and proficiency in core content areas, with a large percentage of the assessments focused on literacy skills. Disaggregated data from these assessments are collected, analyzed, and used to compare schools' effectiveness among countries, states, and districts, and by gender, ethnicity-race, and grade level (California Department of Education [CDE], 2009a, 2009b; National Center for Education Statistics [NCES], 2010). The National Assessment of Educational Progress (NAEP) and the Standardized Testing and Reporting (STAR) are two such assessments that are commonly used in the United States.

The NAEP, established in 1964 by a grant from the Carnegie Corporation, was first administered in 1969. The NAEP, also referred to as the Nation's Report Card, is

used to measure, monitor, and report student achievement in the Arts, Civics, Economics, Geography, Mathematics, Science, U.S. History, Reading, and Writing. States that apply for Title I federal funding must agree to participate in the NAEP. Schools are randomly selected and each year approximately 2,500 students in 100 schools from each state are assessed in specific content areas. Results from the 2007 NAEP found that in United States public schools only 33% of fourth graders and 31% of eighth graders nationwide were literacy proficient (NCES, 2010). Disaggregation of the 2007 NAEP fourth grade data (see Table 1) revealed children of poverty and children of color were disparately lower performing than their white counterparts. Further comparison shows there was no significant difference in the performance disparities in 2007 between subgroups than there was in 1992, illustrating that little progress has been made to address effectively and consistently the achievement gaps that exist for minority and low-income students during the 15-year period.

Table 1

NAEP—Grade 4 Percent Proficient or Advanced in Reading

Subgroup	Nation 2007	Nation 1992	California 2007	California 1992
Low-income	17%	No data	11%	No data
African American	14%	8%	13%	9%
Hispanic	17%	12%	11%	5%
White	43%	35%	40%	28%
ELL	7%	No data	6%	No data

Note. Adapted from NAEP State comparison of Grade 4 percent proficient in reading data. NCES (2010) available online at http://nces.ed.gov/nationsreportcard /statecomparisons/

The nation's lagging literacy growth rate and achievement disparities between subgroups is of great concern to many researchers, politicians, educational analysts, and economists. Projections of an increasingly less literate, less skilled workforce; a rise in

the high school dropout rates, which continue to be 18–21 percentage points higher among African American and Hispanic students when compared to white students; and a rapidly growing minority population are all forces that compose, what Kirsch, Braun, and Yamamoto (2007) have called, “America’s Perfect Storm” (p. 3). According to the 2006 United States Census report, of the nation’s more than 300 million people, the minority population has topped 100 million, with California showing a record 20.7 million—almost 21% of the nation’s total minority population (U.S. Census Bureau, 2006). The widening gaps that exist for children in literacy knowledge, educational levels, and skill levels will translate into inequities as adults in access and opportunity to better jobs and higher salaries (Kirsch et al., 2007).

Reading First Initiative Is Introduced to Improve Literacy Achievement

In an effort to address growing concerns about the disparities in achievement between underperforming minority and low-income subgroups and improving student reading skills for all students, the United States Department of Education (USDE) approved the No Child Left Behind Act (NCLB) in 2001. NCLB included specific language for funding formula grants that would provide targeted assistance to state educational agencies to address these problems.

Title I, Part B (Student Reading Skills Improvement Grants), Subpart I (Reading First) was the George W. Bush administration’s response to the nation’s call to ensure high-quality literacy instruction and access to a rich curriculum for all children. The Reading First Initiative specifically targeted the nation’s high-minority, high-poverty, low-performing schools and provided an opportunity for state education agencies to submit an application to receive funding to establish a comprehensive, research-based

reading program. Once approved, the state educational agencies would allow Local Educational Agencies (LEA) to apply for competitive subgrants to implement reading programs founded on scientifically research-based strategies proved effective in improving reading instruction in their districts. Between 2002 and 2008, the USDE spent more than $1 billion each year to support the implementation of Reading First. A 60% federal budget cut in 2008 resulted in a reduction to $393 million a year to support the program (Antunez, 2002).

NCLB outlined five primary purposes of Reading First (USDE, Office of Elementary and Secondary Education, 2002):

1. Establish scientifically research-based reading programs for students in kindergarten through third grade to ensure all students would be reading at or above grade level by the end of Grade 3.
2. Provide high-quality professional development and other support for teachers in effective reading instruction.
3. Select and administer screening, diagnostic, and reading assessments to monitor student progress and identify areas of need.
4. Select and implement instructional materials and strategies that have proved effective in reading instruction and remediation.
5. Strengthen the literacy program and improve reading achievement for all children. (p. 1)

August 23, 2002, the California Reading First grant application was approved to provide more than $900 million throughout a 6-year period to support implementation of an intensive program designed to improve reading instruction at some of the lowest

performing schools in low socioeconomic areas throughout the state (Haager, Dhar, Moulton, & McMillan, 2009). In addition, a comparison of demographic data of Reading First schools in California to non-Reading First schools also reflects a significantly higher percentage of Hispanic students and significantly lower percentage of white students. In the first year of implementation, 2002–2003 school year, California received approximately $132.9 million in Reading First funding, which was allocated to 13 LEAs containing 283 schools that had subgrant applications approved. During the 7 years of implementation of the Reading First Program, 2003–2009, in California, there were 4 cohorts of Reading First schools approved, totaling 110 districts and 818 schools (Gamse, Bloom, Kemple, & Jacob, 2008).

Essential Components of California's Reading First Program

Federal funding was discontinued for the Reading First Program at the end of the 2008–2009 school year. An independent study of the Reading First Program was authorized by U.S. Department of Education officials and released in 2008. The report was based on student achievement data collected for tens of thousands of students between 2004 and 2006, involving 12 states, 17 school districts, and approximately 1,400 classrooms (Glod, 2008). The *Reading First Impact Study: Interim Report,* released in April 2008, was originally commissioned to address three key questions (Gamse et al., 2008):

1. What is the impact of Reading First on student reading achievement?
2. What is the impact of Reading First on classroom instruction?
3. What is the relationship between the degree of implementation of scientifically based reading instruction and reading achievement? (p. x)

The findings from the Reading First Impact Study indicated that there was no significant impact from the implementation of the Reading First Program on student reading achievement or classroom instruction (Gamse et al., 2008). This information directly conflicted with information from many states, including California, which had previously reported improvement in basic reading skills as a result of Reading First implementation (Reading First, California Technical Assistance Center [CTAC], 2003).

In early 2005, Educational Data Systems (EDS) was retained by the State of California to evaluate the implementation of the Reading First Program in California. The EDS evaluations, published yearly since November 2005, were guided by two questions that focused on implementation and three additional questions that focused on the impact of the program. The five questions asked were (Haager et al., 2009):

1. How well did LEAs implement the program based on California's Reading First Program Assurances?
2. What resources, professional development, and support did administrators, teachers, and coaches receive to support implementation of the program?
3. What is the impact of program implementation on kindergarten through third grade students?
4. What evidence supports that Reading First implementation has improved effectiveness in participating LEAs and schools?
5. What unintended behaviors or outcomes have been observed or evidenced as a result of Reading First implementation? (p. 5)

The EDS evaluations of the Reading First Program implementation reported that there has been a significant impact on student achievement in kindergarten through Grade

5. EDS purports that students in California have benefited greatly from their schools' participation in the Reading First Program (Haager et al., 2009).

Among their findings, EDS reported that principal, teacher, and coach input were found to be the greatest predictors of student achievement gains (Haager et al., 2009). Additionally, the following elements were found to be essential components in promoting the sustainability of the structures and practices put in place as part of compliance to the Reading First Program Assurances: coherent use of state-adopted curricula with fidelity; teacher collaboration focused on student learning and based on data from curriculum-embedded assessments; high quality professional development for teachers, coaches, and administrators; and coaching support.

Improving Literacy Performance in Lancaster School District

Lancaster School District is a preschool through Grade 8 district located in the high desert that has been educating a diverse population of students since 1885. In 2002, Lancaster School District's kindergarten through Grade 8 enrollment of 15,576 students was composed of the following significant subgroups: 35% Hispanic, 33.1% White, and 27.7% African American, with 13.2% identified as English Learners and 61.6% identified as socioeconomically disadvantaged (Education Data Partnership, 2010). By 2009, district enrollment saw a decline to 15,102 students; however, district demographics reflected 47.1% Hispanic, 18.5% white, and 29.7% African American with 20.1% identified as English Learners and 68.4% identified as socioeconomically disadvantaged. These data represent considerable growth in the Hispanic student population (12.1% increase) and the percentage of English Language Learners (6.8%

increase). Another important observation is the significant decline in the percentage of white students in the district (14.6% decrease) during that same time period.

In addition to reporting a high percentage of African American and Hispanic students, English Language Learners, and socioeconomically disadvantaged students, an analysis of Lancaster's School District's 2001–2003 STAR student achievement data for Grades 2 through 8 found chronically low performance for these subgroups. Strong consideration was given to these factors by the state to determine Reading First eligibility. In 2003 (cohort three), Lancaster School District's Reading First application was approved by California for six of the district's 12 elementary schools.

The comparison of 2004 through 2008 STAR student achievement data in English Language Arts between Lancaster School District and California shows that the district performed significantly below the state average for all subgroups (see Table 2).

Table 2

Percentage of Students at or Above Proficient in English Language Arts by Ethnicity

	2007–2008		2006–2007		2005–2006		2004–2005	
	District	State	District	State	District	State	District	State
African American	25.3	35.6	24.1	32.7	21.9	31.7	19.6	28.9
Hispanic	30.2	34.8	27.8	31.1	27.1	29.9	24.0	26.9
White	49.8	66.5	47.5	64.3	46.4	63.8	43.3	60.8
English Learners	21.3	29.0	18.7	25.7	18.2	24.8	16.2	21.9
Socioeconomic Disadvantaged	27.1	34.0	24.9	30.4	23.4	29.4	21.3	26.5

Note. Adapted from the Adequate Yearly Performance data of percentage of students proficient or above on California Standards Test. Available online through CDE (2008) Dataquest at www.cde.ca.gov/dataquest/

Closer examination of the data in Table 2 confirms that an achievement gap continues to exist between the African American and Hispanic students and their white counterparts in the state of California and in Lancaster School District. These data also

reflect disparities in academic achievement based on socioeconomic status when compared with white students.

Figure 1 clearly illustrates that there has been continuous improvement in student achievement for the past 6 years in each of the subgroups for the district; yet, the data also show that the district is not making significant progress in addressing the achievement gaps, which ranged from 17.9% between Hispanic and White students to 25.3% between English Language Learners and White students in 2010.

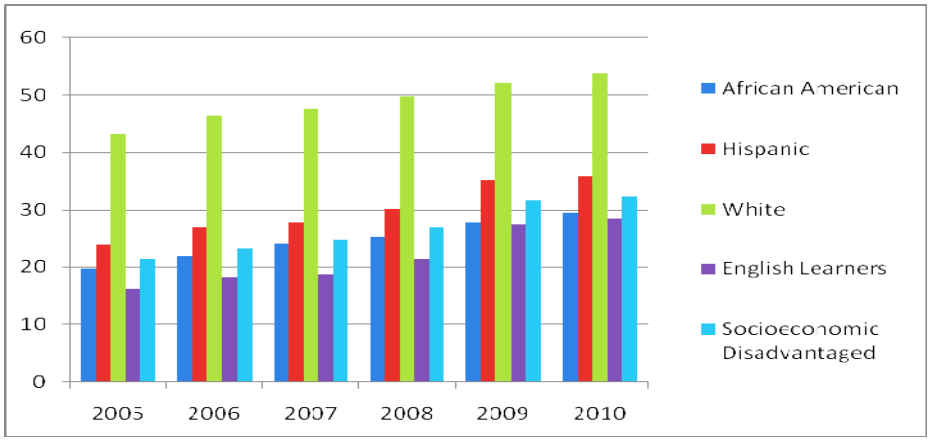


Figure 1. Lancaster School District achievement gap 2005 through 2010. Percentage of students proficient or above in English language arts on CST.

If this pattern continues, the long-term outcome and societal implications for the low-income and minority students in Lancaster School District will be devastating as they prepare for higher education and as they compete for jobs in the 21st century. The chasms that exist in elementary education often continue through postsecondary levels of education (College Board, 1999), as evidenced by the underrepresentation of African Americans and Hispanics in higher-level education (see Appendix A) and the disparities in attainment of higher occupational levels (see Appendix B). “Until many more underrepresented minority students from disadvantaged, middle class, and upper-middle class circumstances are very successful educationally, it will be virtually impossible to

integrate our society's institutions completely, especially at leadership levels" (College Board, 1999, p. 2).

As the Reading First Initiative came to an end in California in June, 2010, the controversy over its effectiveness and impact on student achievement and instructional practices continued to be a topic of discussion and research. While Lancaster School District recognized the importance of establishing and sustaining a high quality reading program that meets the needs of all its learners, historically, the implementation and success of literacy programs in the district had varied greatly. Teacher and student resources and support were not equitably accessible, monitored, or evaluated for effectiveness. There was a need for the district to examine the kindergarten through Grade 3 Reading First Program implementation practices and resources to evaluate program effectiveness and identify strengths and areas of concern as they relate to curriculum content, teacher collaboration, professional development, and coaching. Equally important was the need for the district to determine whether evidence exists that implementation of the Reading First Program impacted the achievement gap.

Problem Statement

Reading First, a federally funded initiative approved in 2001 as part of NCLB, was designed to improve reading instruction in kindergarten through Grade 3. The Reading First Program was implemented in 2004 in Lancaster School District at six of the 12 elementary schools in an effort to improve reading skills for all students and to close the literacy achievement gap among African American students, English Language Learners, and their white counterparts. The results of Reading First Program implementation and its impact on student achievement in Lancaster School District had

yet to be studied. There was a need to compare student achievement between Reading First schools and non-Reading First schools in the district, for all students, and by significant subgroups between 2005 and 2009 to determine what impact, if any, Reading First implementation had on improving literacy performance and closing the achievement gap for students in Grades 2–5, as measured by the California Standards Test (CST).

Purpose of the Study

The purpose of this study was to compare and describe elementary student literacy performance in Lancaster School District in Grades 2 through 5 for six elementary schools implementing the Reading First Program and six elementary schools not implementing Reading First. Additionally, specific subgroup data for English Language Learners and African American students were closely examined and compared with the performance data of white students to determine whether the Reading First Program had narrowed the achievement gap among African American students, Hispanic students, English Language Learners, and their white counterparts. This study also explored the relationship, if any, between the level of Reading First program implementation and literacy achievement of students as measured by the CST. Finally, this study examined the relationship, if any, between the level of program implementation and increased student achievement at Reading First schools for students in kindergarten through Grade 3 who participated in the Reading First program.

Research Questions

The research questions that guided this study were:

1. How did second through fifth grade literacy performance on the CST at six Lancaster School District elementary schools that received Reading First

Grant resources and implemented the Reading First program compare with the literacy performance at the other six elementary schools in the district that did not receive the same resources between 2005 and 2009?

2. How did second through fifth grade literacy performance of English Language Learners, Hispanic, African American, and white students on the CST at six Lancaster School District elementary schools that received Reading First Grant resources and implemented the Reading First program compare with the literacy performance of the same subgroups, respectively, at the other six elementary schools in the district that did not receive the same resources between 2005 and 2009?
3. What relationship exists, if any, between the level of implementation of the Reading First Program, as measured by the RFII, and literacy achievement of students in second through fifth grade, as measured by the CST, between 2005 and 2009?
4. What relationship exists, if any, between the level of implementation of the Reading First Program, as measured by the RFII, and literacy achievement of students in kindergarten through Grade 3, as measured by the RFAI?

Importance of the Study

Lancaster School District leaders may use the findings of this study to inform decisions regarding effective literacy instruction and intervention for at-risk African American students and English Language Learners. Identifying specific instructional strategies and resources that improve teacher efficacy and increase learning for these students is integral in addressing disparities in achievement among subgroups.

A thorough examination of the Reading First Program implementation practices, resources, and support provides essential data to inform the development of a comprehensive literacy plan that addresses curriculum, professional development, coaching, and teacher collaboration that may be implemented at all elementary schools in the district. This study identified promising practices and valuable resources to assist Lancaster School District leaders in building a coherent, effective, and sustainable district literacy program.

Providing high quality, comprehensive literacy programs that improve student learning for all children and that are effective in narrowing the achievement gap is not a task unique to Lancaster School District. Therefore, this study may also prove beneficial to schools and districts throughout California and the nation that face similar circumstances and difficult decisions as they address educational reform, accountability mandates, significant budget cuts, and sustainability challenges.

Delimitations

The study was delimited to examining subgroup data for the four largest subgroups in Lancaster School District based on 2009 California Basic Education Data System statistics: White (18.5%), Hispanic or Latino (47.1%), English Language Learners (20%—note: 94.5% of ELL students in Lancaster School District speak Spanish), and African American (29.7%).

The quantitative data collected was delimited to one district in California and includes six elementary schools that implemented the Reading First Program in kindergarten through third grade between 2005 and 2009 and six elementary schools during the same time period. The study concentrated on literacy and focused specifically

on reading achievement in Grades 2 through 5 during the 5-year period. To identify and compare any data trends, student achievement data was delimited to STAR data for the state of California.

Limitations

A limitation of this study is the depth and quality of the Reading First program implementation at each of the Reading First sites. Extenuating factors that may influence the implementation include the amount of literacy training completed by site teachers, the level of literacy knowledge and expertise of the principals and coaches who serve as support providers to the teachers, and the teacher mobility rate at the site. The teacher mobility rate describes the percentage of teachers whose teaching assignments, either grade level or site assignment, have changed from the previous year.

It is also important to note that the researcher serves as an upper-level administrator in the district and is involved in the development, implementation, monitoring, and evaluation of educational programs for all schools. This limitation may have unintentionally influenced the researcher's recommendations.

Finally, this study was limited to the STAR data reported by CDE based on students in Grades 2 through 5 enrolled in the district, assessed between 2005 and 2009, and did not make any allowances for student mobility or length of student's participation in the Reading First program. The California Basic Education Data System reports the LEA had a district mobility average of 85.4% between 2005 and 2009 and the researcher accepted this percentage of students as accurate for the purpose of this study (CDE, 2010a). It is unknown what implications, if any, this limitation may have had on the findings of this study.

Assumptions

It was assumed that the STAR norm-referenced assessment is a valid and reliable tool to measure student proficiency of core content areas, which include English Language Arts. The CST, a large component of STAR program since the year 2000, is designed to measure students' achievement of the California Academic Content Standards (CDE, 2010b).

Reading First was a national initiative that provided federal funding for schools to implement a comprehensive, scientifically research-based reading program. Additionally, through the assurances, the instructional design of the district-site Reading First Program aimed to ensure the provision of adequate core and supplemental instructional materials (curriculum), instructional support (coaching), professional development for teachers (120 hours annually) and principals (80 hours initially and annual support training), and regularly monitoring curriculum-embedded assessments (collaboration). It was assumed that these four components (curriculum, coaching, professional development, and collaboration) are essential to the establishment of an effective reading program that will meet the needs of at-risk students (Reading Lions Center, 2009).

Finally, it was assumed that all Reading First schools were committed to full implementation of all aspects of the program and are adhering to the expectations and requirements as outlined in the subgrant proposal and assurances. The RFII and the RFAI were based on surveys and student achievement data and calculations were conducted by an external evaluator, EDS. It was assumed that these index scores were calculated correctly, and accurately reflect the level of implementation and achievement at each of the Reading First schools.

Definition of Terms

Achievement Gap: The disparity in performance on standardized educational assessments by groups of students identified by their socioeconomic status, race, ethnicity, or gender (Davenport & Anderson, 2002; Johnson, 2002; Keyes, Burns, & Kusimo, 2006).

Academic Performance Index (API): Established by the Public Schools Accountability Act in 1999 as part of an accountability system to measure student performance on statewide assessments in the State of California. The index ranges from a low of 200 to a high of 1,000 and is calculated and reported for LEAs, schools, and numerically significant subgroups at an LEA or school (CDE, 2009a).

Adequate Yearly Performance (AYP): Outlines targets and criteria for measuring student performance and proficiency levels on statewide assessments as part of a federal accountability program established under NCLB in 2001. Performance measures include advanced, proficient, basic, below basic, and far below basic (CDE, 2009b).

At-risk students: Underperforming students, as measured by curriculum-embedded formative and/or state summative assessments, whose educational program does not support their intellectual, social, or emotional growth and development. The longer students are subjected to inadequate support, the greater the likelihood of them dropping out of school prior to graduating from 12^{th} grade. This may have an adverse impact on their access to higher education, employment opportunities, and their contribution to society as productive citizens (Hixson, 1993).

California Basic Education Data System: Student and staff data that are collected by schools and reported to CDE each year in October. The data collection includes

information for reporting enrollment, race, ethnicity, gender, and identifiers for any special programs or services that students may be receiving (CDE, 2009c).

California Standards Test (CST): An assessment developed in California and used to measure student progress toward mastery of California's state-adopted content standards. Content areas assessed in elementary school include English Language Arts and Mathematics in Grades 2 through 5, writing in Grade 4, and science in Grade 5 (CDE, 2009c).

Coach: A literacy specialist who serves as a collaborative consultant for teachers to promote best practices and offer professional development on effective instructional strategies in English Language Arts (Learning Point Associates, 2004; Moran, 2007).

Collaboration: A collective group of individuals with a shared vision and a common goal. They will work together to identify effective strategies and barriers that impact achieving the goal, have regular dialogues to monitor progress and exchange ideas, and develop a process to evaluate effectiveness (Blankstein, 2004; DuFour & Eaker, 1998; Elmore, 2000).

Curriculum: Content specific, scientifically research-based materials that include the main text, teacher resource and reference materials, student workbooks, and electronic media support materials. For the purpose of this research, the term curriculum also includes district developed pacing guides and curriculum-embedded assessments (Reading First, CTAC, 2003).

English Language Development: A comprehensive instructional approach for students learning English as second language that utilizes state approved English Language Development curricula and incorporates effective differentiation strategies to

meet the needs of English Language Learner (ELL). The State of California provides specific grade-level standards for English Language Development in kindergarten through Grade 12 designed to augment the English-language arts content standards (CDE, 2009d).

English Language Learner (ELL): Students or adults whose primary language is other and English (CDE, 2009d).

Fidelity of Implementation: The teacher's use of curriculum, supplemental support materials, and instructional strategies as they were designed to be used by the publisher to maximize student learning (Reading First, CTAC, 2003).

Highly-Qualified Teachers: Individuals who have completed all college-level coursework to receive a bachelor's degree and the appropriate teaching credential (multiple or single subject) for their teaching assignment. Teachers must be able to demonstrate competency for each subject that they teach (USDE, 2005).

Insourcing: Employment opportunities created for Americans as a result of foreign companies investing in the United States economy through acquisition of existing U.S. companies or establishing new companies (James, 2008; Scott, 2004).

Jim Crow Laws: State and local laws that legalized and supported segregation. Enacted between 1876 and 1965, these laws promoted a separate but equal premise, which usually resulted in inferior education, treatment, and accommodations to those received by white Americans (Davis, n.d.).

LEA Mobility: the percentages of students who have been continuously enrolled and were reported as part of the LEA's enrollment on the October California Basic Education Data System data collection (CDE, 2009d).

Literacy: Age-level appropriate reading and writing skills that enable individuals to be successful in school as children and productive adults in a global society (Edelsky, 2006; Murray, 2003).

Outsourcing: The loss of employment opportunities as a result of American companies moving the manufacturing of products and/or services to foreign countries (James, 2008).

Phonics-Based Instruction: Teaching students how to connect the sounds of letters or groups of letters and teaching them to blend the sounds of letters together to pronounce words (Flippo, 1999).

Professional Development: Training provided to teach skills that enhance an individual's knowledge or expertise in their profession (Learning First Alliance, 1998, 2000).

Proficient: Showing an adeptness or skill in a specific content area (CDE, 2009b).

Reading First Achievement Index (RFAI): A 100-point scale used to determine achievement progress of participating Reading First schools. It is calculated by the state-contracted external evaluator using STAR CST data and curriculum embedded end-of-year assessments (Haager et al., 2009).

Reading First Implementation Index (RFII): A 100-point scale used to determine the degree of Reading First Program implementation at participating schools. It is calculated by the state-contracted external evaluator based on end-of-year survey responses from principals, teachers, and coaches who focus on program elements, program understanding, and professional development (Haager et al., 2009).

Reading Wars: Describes the debate between phonics-based instruction and whole-language instruction (Flippo, 1999).

Standardized Testing and Reporting (STAR): An annual assessment administered to children in Grades 2 through 12 in the State of California and used for district, school, and student accountability purposes. The test was authorized by Senate Bill 346 in October 1997 to assess students' mastery of the California state standards (CDE, 2010b).

Subgroup: A division of a larger group and distinguished by ethnicity-race, gender, socioeconomic status, English Language Learner status, special education designation, or gifted and talented designation (CDE, 2009b).

Whole Language Instruction: Predicated on the principle that children could learn to read when they are motivated, provided opportunities to read and access to good literature, and focused on comprehension (Flippo, 1999).

Organization of the Study

This study was organized in five chapters. The first chapter presents an introduction to the study and provides background information to discuss reading achievement and its societal and economic implications. Chapter 1 specifically examines reading achievement in Grades 2 through 5 and identifies disparities that exist in the United States, California, and in Lancaster School District. This foundational information was the basis for studying how the Reading First Initiative might impact reading achievement for K through 5 students and close the identified achievement gaps.

Chapter 2 offers a brief overview of the history of reading instruction in the United States. It provides research on the achievement gap and the key components of the Reading First Plan in California, designed to improve reading instruction for all students

and close the gap. Research on Reading First implementation practices in Lancaster School District was studied. The summary identifies promising practices that were implemented as part of the assurances for the Reading First Program that may have influenced reading achievement in underperforming subgroups.

Chapter 3 discusses the research methods used to conduct the study. It examines the instruments and data used to measure implementation and achievement, and identifies how the data were analyzed, aggregated, and reported to assure the validity and reliability of the study.

Chapter 4 presents a report of findings as a result of an analysis of statistical data collected on student achievement and implementation. In addition, a descriptive analysis was examined to identify any observable trends. The descriptive analysis, statistical data, and resulting decisions guided the final report of findings.

Chapter 5 discusses the conclusion of the study and outlines implications that it might have for improving reading instruction and closing the gap. Recommendations are offered for consideration by Lancaster School District, other LEAs, and legislators.

Chapter Two. Literature Review

The comprehensive literature review in this chapter provides a research-based foundation for this study and its findings and is organized in six parts: (a) a brief overview of the history of education and reading instruction in the United States and in California; (b) an examination of the achievement gap—past, present, and future—and its potential impact on children and adults in a global society; (c) the political response to addressing educational needs in the United States; (d) an in-depth look at California's Reading First Plan; (e) an outline of the Reading First implementation in Lancaster School District; and (f) the chapter summary.

Historical Perspective of Education and Reading Instruction

Reading instruction in the United States: 1750–1950. In the late 18th century, education began to move from the home into the one-room schoolhouse. By the late 19th and early 20th centuries, one-room schoolhouses were found in many small town and rural locations throughout the United States (Rylance, 1981). Most of the one-room schoolhouses had one dedicated teacher who taught as many as eight grades and focused on the basics of reading, writing, and arithmetic. In the United States between 1750 and 1950, teacher preparedness and curriculum varied greatly from state to state, city to city, and school to school; however, phonics instruction was the most widely preferred method of teaching reading until the mid 20th century.

The Reading Wars: 1950–1997. In 1967, Kenneth Goodman and Frank Smith introduced the whole-language approach to reading instruction as a result of an analysis of Noam Chomsky's work on linguistic principles and development in the 1950's. Since 1967, there has been great controversy over the most effective way to teach reading

(Smith, 2002). The polarizing debate vacillated between the attributes of a phonics-based approach versus a whole-language approach and was nicknamed the Reading Wars (Pearson, 2004). In 1967, during the midst of the Reading Wars controversy and the Cold War, which served as the impetus that spawned fears of U.S. politicians and educators that the Russian education system was superior, the First Grade Studies report was released (Bond & Dykstra, 1967).

The *First Grade Studies* is cited as one of earliest comprehensive studies to examine how first grade children best learn to read. Bond and Dykstra (1967) used three research questions to guide their study, which involved 27 projects, each coordinated by a different director. The projects were commissioned to: (a) examine the implications of teacher and student characteristics on first grade reading and spelling achievement, (b) identify effective instructional strategies that produced good readers in first grade, and (c) review reading programs that were effective in meeting the unique needs of struggling students (Cowen, 2005). As a result of this research, the report suggested that the teacher's attitude, tools, and training were more important than the dictation of either a phonics-based or a whole-language methodology (Flippo, 1999; Harp & Brewer, 2005; Smith, 2002). Since 1967, the *First Grade Studies* has been influential in building exemplary literacy programs and guiding the direction of reading instruction in the United States (Cowen, 2005).

A balanced approach to reading instruction: 1969–2010. In the 1975 report commissioned for the National Institute of Education, *Toward A Literate Society,* Carroll and Chall suggested that a balanced approach, one in which phonics and whole-language strategies were integrated, would be the most effective way of teaching reading. The

1998 National Reading Panel conducted a meta-analysis of effective reading strategies, including both phonics and whole-language methods. The ensuing report published in 2000, *Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature on Reading and its Implications for Reading Instruction*, advocated a comprehensive balanced literacy approach and identified five areas critical for effective instruction in reading for students in kindergarten through Grade 6: phonics, vocabulary, phonemic awareness, fluency, and comprehension.

For the last decade, increasing numbers of educational scholars and practitioners have opposed the either-or position in the Reading Wars debate and have instead supported the following position (International Reading Association, 1999):

> There is no single method or single combination of methods that can successfully teach all children to read. Therefore, teachers must have a strong knowledge of multiple methods for teaching reading and a strong knowledge of the children in their care so they can create the appropriate balance of methods for the children they teach. (p. 2)

The California master plan for education. As noted earlier, for centuries U.S. leaders and politicians have clearly focused on education and have sought ways to establish a system that would provide free public education to its citizens; California's Legislature was no exception (Joint Committee to Develop a Master Plan for Education, 2002). They embraced the belief that society would benefit greatly from investing in the education of its citizens. Today, Article IX, Sections 1 and 5, of the California State Constitution, provides free elementary and secondary public education as a fundamental

right to all citizens in the State and Education Code 48200 requires compulsory attendance of children beginning at age 5.

California's 19th century educational system is not flexible, responsive, or engaging enough to meet effectively the needs of all its 21st century learners. Since the 1960s, California has struggled with keeping up with the educational demands brought on by an explosive growth rate of 400,000 to 600,000 persons annually; a significant increase in the number of minority and non-English speaking students ages 5 through 19 resulting in very diverse educational needs; and an ever-evolving global and technological society (Joint Committee to Develop a Master Plan for Education, 2002).

In 1999, the California Legislature established a joint committee to develop a master plan for education. Its primary objective was to provide a framework for the development of a comprehensive educational program that would support all learners in acquiring the skills necessary to be prepared and successful as they make the transition into higher education and the workforce (Joint Committee to Develop a Master Plan for Education, 2002).

After examining state and national testing data and gathering information from California's business community, the joint committee found compelling evidence that California schools were not equipping large percentages of students with the knowledge and skills they need (Joint Committee on California Master Education Plan, 2002). It found this to be especially true for low-income students and students of color. Furthermore, it observed a significant disparity in achievement between African American students and English language learners and their white and Asian counterparts. Focused on students, equity, access, and outcomes, the joint committee drafted the

California Master Education Plan. The fundamental tenet of the plan is “to ensure that appropriate learning opportunities occur at developmentally optimal times for learners, resulting in gains in every student’s knowledge and cognitive development” (p. 5).

Continued population growth and changes in the ethnic and racial distribution of students across the state are projected for several decades to come (Center for Immigration Studies, 2010). Public schools will continue to grow more diverse and complex, but must become more flexible and responsive to the many languages, learning styles, and cultures of the students they serve (D. Darling, 2005; Edelsky, 2006; Freidman, 2005; Lindsey, Robins, & Terrell, 2003). Students who are provided a rigorous curriculum and support to be successful have enhanced opportunities and choices (Johnson, 2002).

It is more important than ever that California establish high-quality educational programs that support all learners; programs that take them from where they are and support them in meeting rigorous standards and high expectations for learning. To develop an effective, comprehensive approach to close the achievement gap and improve learning for all children, it is critical to understand how inequities in access, resources, rigor, and expectations, for more than 2 centuries, have resulted in educational disparities and large-scale reform efforts to improve literacy instruction in California and the nation.

Understanding the Achievement Gap

Historical perspective. ***The Common School Movement.*** In the 1830s, during what was referred to as “the Common School Movement,” education supporters and political leaders established locally funded schools that children could attend for free (Reese, 2005). Kaestle (2007) referred to the Common School Movement as “a turning

point in American educational history" (p. 23), as it also marked the beginning of compulsory school attendance laws for elementary-aged white children. Initially, there was no overwhelming support by many government officials, as there was considerable controversy about funding issues: Local vs. state control, inequities in the quality of teachers and resources, varying conditions of the school buildings, and an unwillingness for affluent parents to send their child to public institutions. However, as immigration from Ireland and Germany increased and the economy began to flourish, many outspoken adversaries of the Common School Movement were forced to abandon their separatist beliefs and traditions and began to support centralized schooling (Kaestle, 2007; Reese, 2005).

While the movement gained momentum by the mid to late 1850's, access to education continued to be limited to white children and the educational program and resources usually reflected the beliefs, priorities, and values of Protestant white Americans (Kaestle, 2007). The Civil War period, 1861 through 1865, found many Northern and Midwestern states with well-structured common school systems. Though far-Western and Southern states did not progress as quickly, by early 20th century, public schools had become a foundational part of the U.S. education system (Reese, 2005).

Although a system of public education was adopted by all states by the late 1900s and believed to be key in creating productive, law-abiding citizens, many Americans openly opposed the tenets supporting the Common School Movement, which sought to ensure equal access to public education for all children, regardless of gender, religion, race, or ethnicity (Kaestle, 2007). This resistance oftentimes resulted in racially segregated schools, inequities in facilities, and provision of inferior educational materials

and instructional resources (National Museum of American History, 2010).

Desegregation of America's schools and African Americans. Jim Crow laws legally segregated schools and African Americans defied antiliteracy laws of the 1800's in an effort to educate themselves and their children (Davis, n.d.). In the 1830s, supporting the belief that education should help preserve social stability, reduce crime, and build character, the McGuffey Readers became the most influential and widely used textbooks of the 19th century. In addition to teaching reading, the textbooks heavily focused on religious-based, moral and ethical principles that portrayed white, Anglo-Saxon, Protestants as the model American (Public Broadcasting Service, 2001). With a steady increase in immigration, and the movement requiring states to educate all children in public schools using public funds (regardless of race and/or ethnicity), the McGuffey Readers were viewed by many as a way to Americanize the masses. Though the content of the readers has undergone revisions throughout the years to be more reflective and sensitive to the issues of the nation and the needs of students, the McGuffey Series is still considered a remarkable literary work; it is estimated to have sold more than 120 million copies between 1836 and 1960 (Jefferson National Expansion Memorial, 1993). In addition to providing a sound foundation for the development of reading comprehension, vocabulary building, spelling, and public speaking, the McGuffey Readers have undeniably influenced the moral, ethical, and cultural beliefs of children and adults across the nation, and are still in use by some school systems and home schooling programs.

The 1896 Supreme Court ruling in Plessy vs. Ferguson established the separate but equal policies (National Museum of American History, 2010). However, educational access for African Americans continued to be stifled, as the quality of materials and

facilities were neither equal nor equitable. It was not until 1954 that segregation was ruled unconstitutional by the Supreme Court in Brown vs. the Board of Education of Topeka, Kansas. In 1964, President Lyndon Johnson signed the Civil Rights Act of 1964, making discrimination of any kind illegal (The National Archives, 2010). The forced desegregation of America's public schools was a painstaking process, which only came after self-sacrificing individuals of courage chose to stand for what they believed was right and just—oftentimes, at the expense of their freedom or their life (National Museum of American History, 2010).

Discrimination in education had an adverse effect on academic outcomes for African American students in the United States, in part, because of the inequities in access to educational resources, including, but not limited to, curriculum, facilities, and highly qualified teachers, but also because of racial and social composition (Rumberger & Willms, 1992). While the intent of desegregation was to redistribute educational resources to ensure equal access to the educational tools needed and promote higher educational achievement for African American students, research suggests, "Despite the court's efforts, Black (African American) segregation has only declined slightly since the 1960's, while Hispanic segregation has actually increased" (p. 378).

Education in America and Mexican immigration. Mexicans have been the single largest Hispanic immigrant group in the United States (Thernstrom & Thernstrom, 2003). By the early 1900's, 2 million immigrant and nonimmigrant children under the age of 15 found themselves thrust into the industrial labor force, agriculture, or service industries, and, in many cases, denied the opportunity of receiving an education in the United States. They primarily traveled by land, not boat, which resulted in large populations settling in

regions closest to the Mexican border.

The adverse conditions took their toll on educational opportunities for Hispanics. By the 1960s, as a result of many Mexicans being unable to attend school, as much as two thirds of the Hispanic population was illiterate (Thernstrom &Thernstrom, 2003). The 1970s brought unprecedented growth of legal immigration from Mexico as a result of reforms in immigration laws (Center for Immigration Studies, 2010). By the 1990s, immigration had grown to an average of more than 225,000 a year from only 30,000 per year in the 1950s (Thernstrom & Thernstrom, 2003). The Center for Immigration Studies (2010) recently reported that the Mexican immigration population has grown to about 8 million, with almost 48.2% (3.8 million) residing in California. The numbers alone bring a sense of urgency to this situation and stress the importance of ensuring a high quality educational program for all children.

For more than 2 centuries, numerous special interest groups and politicians have fought to influence the formulation of educational policies to provide and ensure equitable access to educational opportunities for all children, without regard for gender, race, ethnicity, or socioeconomic status. As mentioned earlier, landmark court decisions, such Brown vs. the Board of Education in 1954, and legislation that supported federal child labor reform, and the Civil Rights Act of 1964, made strides toward addressing the disparities that existed in educational access. However, even with these noble efforts of so many for so long, a chasm still remains, as many continue to harbor and perpetuate racist beliefs, believing that certain groups of individuals may be too feeble minded, less intelligent, or simply undeserving of a free and appropriate public education in the United States (Lindsey et al., 2003; Singleton & Linton, 2006; Thernstrom & Thernstrom, 2003).

Disparities in achievement get national attention. Although disparities in school achievement have long existed, it was not until 1963 that the use of the term achievement gap was first recorded in a journal article by Gerald Walker about desegregation in Englewood, New Jersey (Salmonowicz, 2009). Between 1964 and 1970, the terms achievement gap, or gaps in achievement, were used in several public reports or articles such as Chicago's Hauser Report (P. M. Hauser, McMurrin, Nabrit, Nelson, & Odell, 1964), The Coleman Report (Coleman et al., 1966), and The American Economic Review Journal (Gwartney, 1970). S. Anderson, Medrich, and Fowler (2007) state that though the term achievement gap may be used to describe numerous subgroups of students, "most studies on the achievement gap have focused on differences in achievement test scores between white and African American students" (p. 548).

After more than 5 decades since Brown vs. the Board of Education in 1954, achievement gaps continue to exist, regardless of socioeconomic level, among African American and Latino students and their white and Asian counterparts (Johnson, 2002). Education Trust's (2009) comparison of the 1998 through 2009 NAEP Grade 4 reading achievement data found no significant gains had been made in closing the gaps among African American and Latino students and white students; the same holds true for the gap that exists between higher income and lower income students (see Appendix C). Education Trust's comparison of 1998 and 2009 NAEP Grade 4 reading performance results for African American and Hispanic students across states (see Appendix D) revealed that California's performance for African American students was in the lowest one third and Latino students had one of the poorest performances.

Johnson (2002) states, "We must aim to create a nation of high achievers

regardless of background" (p. 5); dispelling myths of academic inferiority and lack of motivation that result in inequities in expectations, access, and rigor is an integral part of the complex reform necessary to close the achievement gap.

A conceptual framework to close the achievement gap in California. Fullan (1999) wrote:

> Those engaged in educational reform are those engaged in societal development; those engaged in societal development are those engaged in the evolution of virtue. It is time to return to large-scale reform with even more ambitious goals than we had in the 1960s, armed with the sophisticated knowledge that we can turn complexity's own hidden power to our advantage. (p. 84)

On February 6, 2007, the state superintendent of education directed the P-16 Council to develop a plan that would outline instructional strategies, resources, and promising practices believed to address effectively closing the achievement gap in California. The council, composed of preschool through college-level educators and individuals from the business community, availed itself of research and best practices from successful schools and districts across the nation to inform the development of its report. In 2008, the *Closing the Achievement Gap* report was released by the P-16 Council and included specific recommendations in four critical areas: access, culture and climate, expectations, and strategies (California P-16 Council, 2008). The recommendations serve as a guide to educators in the development, monitoring, and evaluation of programs specifically aimed at closing the achievement gap.

Access—In what ways do districts and schools ensure equal access to rigorous, state-adopted curriculum and highly qualified teachers for the lowest performing

students? What extended learning opportunities, intervention, or enrichment opportunities exist for students performing below grade level standards? How are educational programs and requirements aligned to prepare students to meet 21st century learning needs? (Brandt, 2000; Lauder et al., 2006; Thernstrom & Thernstrom, 2003; Thompson, 2004).

Culture and climate—In what ways do schools establish safe, positive environments for all children that promote strong relationships and increased student engagement? What supports and services are provided to parents and students to address their nonacademic needs? How are culturally responsive teaching and learning strategies incorporated in the classroom to make learning experiences meaningful and relevant? What strategies are incorporated in the program to promote parent and community involvement? (Johnson, 2002; Lindsey et al., 2003; Thompson, 2004).

Expectations—Do districts and schools clearly articulate high expectations for teaching and learning for all educators and students? How do instructional leaders establish learning environments where the efforts of all stakeholders support a genuine belief that all children can achieve at high levels? Is there an emphasis and commitment to ensure academic rigor at all levels of the organization? (Johnson, 2002; Reeves, 2000).

Strategies—In what ways do schools promote, monitor, and evaluate the implementation of promising practices and effective instructional strategies that are student-centered and evidenced-based? How is the student achievement data information system utilized and managed? What professional development opportunities exist for teachers and administrators covering the effective use of data? What structures and support are provided that encourage teachers and administrators to work collaboratively to monitor regularly student progress and share successful practices? (Blankstein, 2004;

DuFour & Eaker, 1998; Johnson, 2002; Marzano, 2003).

These themes were identified by the council as the four key areas that, when not purposefully and comprehensively addressed, may inhibit a student's ability to be successful. They were given the acronym ACES—Access, culture-climate, expectations, and strategies (CDE, 2009e). Superintendent O'Connell's ACES campaign places an emphasis on closing the achievement gap.

O'Connell cites ACES as an important initiative and worthy focus for the state based on the 2007 NAEP scale reading score data that show California scored below the national average for all students reading in fourth grade; 209 state average vs. 220 national average—11 points difference (as cited in NCES, 2010). The same report also found that California's African American students scored below the national average for African American students (200 state average vs. 203 national average for African Americans), and Hispanic students fared even worse (195 state average vs. 204 national average for Hispanics). O'Connell urges educators to stay the course in their efforts to improve education for all students and offered encouraging information about the progress that has been made statewide between 1992 and 2007, which reflects a narrowing of the gap from 36 to 27 points based on 2007 NAEP data (Walters, 2009). Researchers agree that closing the achievement gap has risen to a critical level and have worked to identify schools that have beaten the odds (Johnson, 2002; Reeves, 2000; Singleton & Linton, 2006; Thernstrom & Thernstrom, 2003; Thompson, 2004).

Reeves (2000) found in his 90/90/90 research conducted between 1995 and 1998, that schools with 90% combined minority, 90% identified as socioeconomically disadvantaged, and 90% success rate on standardized assessments, had five

commonalities: (a) a clear focus on improving student achievement, (b) a comprehensive understanding of curriculum and supplemental materials, (c) a practice of monitoring student progress through the use of frequent formative assessment data, (d) an emphasis on writing in all content areas, and (e) use of common assessments and data management systems (external scoring) to facilitate teacher collaboration.

Thompson (2004) outlines 18 effective strategies for educators to be successful with children of color that stress the importance of genuine, transparent relationship building with students; establishing high expectations and supporting students in attaining their goals; promoting and providing opportunities for higher order questioning and thinking; emphasizing language development; and acknowledging and celebrating students' strengths.

Johnson (2002) suggests that the ongoing use of formative and summative data is an effective way to monitor student progress, evaluate program effectiveness, and promote increased teacher efficacy. She goes on to cite the importance of adopting policies and practices to address inequities that may exist in classrooms, schools, or districts that may impede learning of minority students. Last, she endorses a continuous cycle of inquiry process and encourages collaborative conversations that lead to program decisions based on evidence. The use of data promotes the idea of setting high expectations for all children and offering enrichment or intervention support based on performance not inaccurate perceptions or stereotypical beliefs.

In *Failure is Not an Option,* Blankstein (2004) cited six principles that, based on his research, he believes guide continuous student improvement for all students in high performing schools: (a) developing a shared mission, vision, values, and goals; (b)

establishing and maintaining high expectations for learning for all students and providing intervention support as needed; (c) teachers working collaboratively focused on student learning and improving their professional practice; (d) effective using data to guide instruction and decision making; (e) promoting ongoing family and community involvement; and (f) focusing on building leadership capacity to support sustainability.

Though researchers have different ways to describe key characteristics and strategies of high poverty, high minority schools that successfully promote academic success for all children, there are many commonalities. The recommendations and characteristics noted from researchers' findings on highly successful schools oftentimes fit into one of the four framework components identified by the P-16 Council: access, culture/climate, expectations, and strategies (see Table 3).

Table 3

Common Characteristics of High Minority, High Performing Schools

Researcher	Access	Culture/Climate	Expectations	Strategies
Blankstein, 2004	Provide intervention support	Shared mission, vision, values, goals; Build leadership capacity	High expectations for learning	Teachers work collaboratively
Johnson, 2002	Provide more students access to, and support in, advanced placement courses	Clear and open communication with staff, students, and community	Assess policies and practices that promote or impede equity in schools	Effective use and analysis of data for teacher dialogue based on outcomes

(*table continues*)

Researcher	Access	Culture/Climate	Expectations	Strategies
Reeves, 2000	Comprehensive curriculum and supplemental materials; Students have multiple opportunities and ways to show mastery	Focus on professional development; Regular parent communication	Emphasis on achievement and continuous improvement	Writing in all content areas; Use of common assessments and data management system to monitor student progress; Teacher collaboration
Thernstrom and Thernstrom, 2003	Equal access to a rich academic program; Teach social and cultural norms; Access to advanced courses	Celebrate success; Publicize value of education and the opportunities it may bring	Promote a no-excuses philosophy; Provide structure that teaches students disciplined work habits	
Thompson, 2004	Offering intervention, extra credit; Rich vocabulary development; Thematic curriculum	Building trusting relationships with students and parents	Establish and maintain high standards and high expectations for learning	Work collaboratively to explore attitudes or beliefs about students of color

Despite the gains that have been made and the best practices research that is available, challenges in educating students of color persist. The ACES Initiative provides a framework for LEAs throughout California to ensure rigor and resources for all students, adopt equitable policies and practices, and address attitudes and beliefs about the ability of all children to achieve at high levels in a strategic effort to close the achievement gap. The focus on access, culture-climate, expectations, and strategies is “an imperative for the State of California” (CDE, 2009e, p. 2) intended to offer an implementation plan and accountability process that supports the development of schools that work for all children.

Access. In identifying fundamentals necessary to help all students achieve, Haycock (2001), president of the Education Trust and notable child advocate, stated, "To increase the achievement level of minority and low-income students, we need to focus on what really matters: high standards, a challenging curriculum, and good teachers" (p. 6). When discussing how to ensure equitable schools and classrooms for all children, other researchers agree that standards, curriculum, and teacher quality are important core considerations (Bumgardner, 2010; Marzano, 2003; Reeves, 2000).

The call for standards began more than 2 decades ago when *A Nation at Risk* report was released in 1983 by the National Commission on Education Excellence (Barton, 2009). At that time, the USDE lacked support from the Reagan administration and the report did not call for national standards, but common standards for states, districts, and schools. It was not until the National Council of Teachers of Mathematics published a set of standards for mathematics in 1989 that the movement toward national standards found a voice. The importance and value of national standards has been at the center of numerous political and educational debates since that time and raising academic standards continues to be a focus for the current presidential administration (N. Anderson, 2010).

In the absence of national standards, many states have developed standards in several of the core content areas (i.e., language arts, mathematics, science, and social studies). From state to state, there is tremendous variance in the quality and rigor of the standards and assessments used to measure student proficiency (Finn, Julian, & Petrilli, 2006). However, California was ranked first in both 2000 and 2006 and recognized for creating challenging academic standards in all content areas in the Fordham Foundation's

State of State Standards report. The data from the report did not reveal a direct correlation between high standards and increased student achievement, but researchers continue to espouse that establishing high state standards is an important step toward leveling the playing field for all children by clearly defining what teachers are expected to teach and what children are expected to learn (Finn et al., 2006; Haycock, 2001; Marzano, 2003).

Ensuring that all students have access to a challenging curriculum, rigorous courses, and intervention-enrichment opportunities is another way to mitigate inequities in schools that may lead to disparities in achievement and limit access to higher education (Blankstein, 2004; College Board, 2001; Johnson, 2002). It is also important that the standards, curriculum, instruction, and assessments are aligned. Studies suggest that students are more successful when implementing a standards-based educational program in which students, teachers, and administrators have a shared understanding of the educational goals (Krueger & Sutton, 2001). In addition to access to the core subjects, all students should be afforded extended learning and intervention opportunities during the school day to support them in reaching their educational goals (Reeves, 2000; Thernstrom & Thernstrom, 2003).

Teacher quality remains an undeniable area of focus when identifying factors that impact student achievement, especially among minority students. The National Commission on Teaching and America's Future (1996) strongly believes that providing highly qualified teachers is absolutely the most important influence on improving student achievement. Although a teacher's score on standardized tests does not serve as an indicator of a teacher's ability to be successful in a classroom setting, most states do require teachers to pass a minimum competency exam (Thernstrom & Thernstrom, 2003).

Research found that all too often the low-income, lowest performing students get the least qualified teachers; those who lack experience, competency of content knowledge, or possess inadequate teaching skills (Haycock, 2001; National Commission on Teaching and America's Future, 1996). Politicians and educators across the nation more clearly understand and agree on the importance of investing in teacher preparedness, recruitment, retention, and ongoing, comprehensive professional development (Haycock, 1998; Johnson, 2002; National Commission on Teaching and America's Future, 1996).

During the last 2 decades, momentum has grown and there has been an increased focus on policies and practices that support standards-based education. More recently, attention has been drawn to the necessity for a broadening of learning expectations and an expansion of teaching strategies as the demand for 21st century skills becomes more ubiquitous (Brandt, 2000; Lauder et al., 2006). Additionally, educators are challenged to ensure that instruction is culturally and personally relevant to promote student engagement and affect student learning, especially among African American and Hispanic students (Brandt, 2000; Ladson-Billings, 1994; Lindsey et al., 2003; Thompson, 2004).

Culture and climate. School culture addresses the value and belief systems that have been developed over time that influence an organization's life, and how it functions and responds to daily activities. It is defined by the routines, rules, and norms that impact the behaviors, positively or negatively, of members of the organization (Schein, 2004). School climate may be described as how the stakeholders of an organization feel about being at, or part, of the organization (e.g., do students feel safe? Do students feel supported in the learning process? Do parents feel welcomed? Does staff feel supported?

Do people feel there is a sense of mutual respect and genuine caring?). Though there are varying definitions of school climate, J. Cohen (2006) notes that it is subjective and is oftentimes defined by an individual's personal experiences.

While there is no consensus on, and at times no clear delineation between, culture and climate, there is compelling research that supports that school culture and climate affect learning outcomes for students (C. Anderson, 1982; Creemers & Reezigt, 1999; Miller & Fredericks, 1990). If the classroom and school are thought of as a community, it is easy to understand how the environment can influence behaviors, attitudes, and self-efficacy of students, teachers, and parents (Keyes et al., 2006; Singleton & Linton, 2006; Tatum, 2009).

Marzano (2003) points out that before efforts to improve student achievement can be successfully implemented, it is essential for schools to ensure a safe and orderly environment conducive to learning for students and teachers (professional development). Marzano cites several studies the findings of which substantiate his emphasis on establishing and maintaining a safe school environment: Chubb and Moe, 1990; Edmonds, 1979; Mayer, Mullens, Moore, and Ralph, 2000; and Sammons, Hillman, and Mortimer, 1995. Surveys have clearly shown that the school environment is a major concern of students, parents, educators, and politicians, and in some school districts, it even surpasses concerns about academic achievement (Noguera, 1995; Sewall & Chamberlin, 1997). As a result, ensuring a safe and orderly environment is frequently a prerequisite before schools can focus on improving student learning.

Though establishing rules and behavioral procedures that support creating and maintaining a positive learning environment are important, studies have shown that

inequities in school discipline practices have resulted in disparate numbers of African American and Latino students referred for suspension and/or expulsion from school (Bay Area School Reform Collaborative, 2001). In some cases, African American students, especially boys, and Latino students are suspended at up to twice their proportion in the school population (Gordon, Piana, & Keleher, 2000). Though educators usually describe their disciplinary practices as unbiased, there is increasing research that suggests practices are actually laden with subjectivity influenced by cultural beliefs and differences (Cotton, 1996; Gordon et al., 2000; Noguera, 1997).

According to researchers, there are three common factors that may result in disparities in disciplinary practices: (a) cultural misperceptions and miscues; (b) fear and misinterpretation of student behaviors that are deemed defiant and disruptive; and (c) low expectations and inadequate academic support (Bay Area School Reform Collaborative, 2001; Ferguson,1998, 2000; Gordon, et al., 2000; Gregory, 1997; Kohl, 1994; Ladson-Billings, 1994; Noguera, 1999). There is no specific strategy or template that will improve these practices or diminish the negative impact they have on a student's self-esteem and ability to achieve at high levels. It will take relationship building and a willingness to have honest discussions about racial disparities in disciplinary practices to transform the school culture into one that is culturally responsive, equitable, and positively reinforcing for all children (Keyes et al., 2006; Tatum, 2009).

Blankstein (2004) considers transforming the school culture key to establishing schools in which all children can, and do, learn. The first of six principles that he believes influence student achievement is the development of a shared mission, vision, values, and goals. The mission articulates what the work of effective schools is and why it is

important. Blankstein suggests four questions to guide the development of a mission statement:

1. What is it we expect all students to learn?
2. How will we know if they are learning it?
3. What do we do when they don't?
4. How will we engage students in their own learning? (p. 67)

Vision draws a picture of what the organization can become. Values are the shared behaviors and attitudes of the organization. Goals are the intermittent benchmarks that help measure success toward the vision. The mission, vision, values, and goals should be aligned and work together to improve and support continuous improvement of student learning. More important, it is critical that the mission, vision, values, and goals are shared by the entire school community and serve as the foundation for decision making (Blankstein, 2004; Fullan, 1999, 2003; Marzano, Waters, & McNulty, 2005).

Within the culture and climate of an organization is found the strength and determination needed to create schools that work for all children. They play an important role in the school improvement process and, consciously and subconsciously, influence the school community's attitudes and expectations about the ability of all children to learn (Blankstein, 2004; Fullan, 1999, 2003).

Expectations. Ozturk and Debelak (n.d.) noticed that low academic expectations and achievement plague many schools in the K-16 education system across the United States. Increasing numbers of incoming freshmen in colleges and universities require remedial English and/or math courses. High school courses are less rigorous and not all students are provided classes that meet college acceptance requirements. Middle and elementary schools often focus on remediation instead of acceleration programs for underperforming students, resulting in fewer students making gains necessary to achieve grade-level standards. Additionally, Ozturk and Deblak noted that expectations for study habits and effort were also lower in American students when compared to students in higher achieving countries. To create a culture of academic success, high expectations must be set for students, teachers, administrators, and parents (Barth et al., 1999; Blankstein, 2004; Marzano et al., 2005).

Stronge (2002) found that effective teachers not only held high expectations for students, but clearly articulated the expectations to students, empowering them to be responsible for their own learning. In addition, effective teacher also held students accountable. In addressing the complexities of underperforming urban schools, Lee (2002, 2003) points out that it is critical to raise expectations and provide students the resources to achieve their academic potential. Reynolds and Teddlie (2000) imply that setting high expectations for students should be accompanied with establishing clear academic goals for achievement. Schmoker (1999) concurs that goal setting is an important factor for achieving student success and adds ensuring that the goals are challenging for all students is key.

Edmonds (1979), leader of the Effective School Movement in the late ’70s to early ’80s, claimed that high expectations were an essential component of effective schools and identified it as one of the Correlates of Effective Schools. Edmonds defined high expectations as the development of a school climate in which staff believes in its ability to support students in achieving their academic goals and its members communicate and demonstrate that belief and expectation to students. The effective schools movement permeated hundreds of school districts and thousands of classrooms across the United States, strongly influencing school-wide reform efforts. Edmonds wrote:

> How many effective schools would you have to see to be persuaded of the educability of all children? If your answer is more than one, then I submit that you have reasons of your own for preferring to believe that basic pupil performance derives from family background instead of school response to family background. Whether or not we will ever effectively teach the children of the poor is probably far more a matter of politics than of social science and that is at it should be. It seems to me, therefore, that what is left of this discussion are three declarative statements: (a) we can, whenever and wherever we choose, successfully teach all children whose schooling is of interest to us; (b) we already know more than we need to do that; and (c) whether or not we do depends on how we feel about the fact that we haven’t so far. (p. 22)

Confronting the ills of the achievement gap will require all stakeholders to undergo a transformation, moving from their comfort zone of mediocrity and complacency to challenge the status quo and their beliefs about the ability, or inability, of

all children to learn at high levels (Singleton & Linton, 2006). Students must believe in their own ability to achieve, value education, and be willing to work at school and outside of school to master appropriate standards. It is equally important for parents to encourage their child by supporting and demanding high standards and expectations for student learning. Teachers and administrators need to acquire new skills and embrace new strategies that provide an unrelenting focus on continuous improvement in student learning (Eaker, DuFour, & DuFour, 2002). Moreover, Loehr and Schwartz (2003) argue that school and district leaders (administrators) are the "stewards of organizational energy" (p. 5), inspiring or demoralizing others in the organization by their actions, attitudes, and expectations.

Organizational change of this magnitude will require a major paradigm shift for many in a district where the classroom or school site serve as a private sanctuary for some teachers and administrators. Marzano et al., (2005) describes change of this magnitude as Second-Order Change, a break from existing values and norms based on the acquisition of new knowledge and skills (see Appendix E). Transformational reform, second-order change, offers a different way of thinking about old problems and offers new strategies to improve teaching and learning.

Strategies. Reculturing the system suggests that we identify ways to deepen our understanding about race and poverty issues in our community and provides a platform for, what Singleton and Linton (2006) describe as *Courageous Conversations About Race*. Singleton and Linton contend that the achievement gap is truly a racial gap that is not dependent on socioeconomic status and believes that the harshness of this reality must be the topic of intentional, explicit discussions. It is imperative to shift from a

culture of blame (blaming the students, blaming the parents, blaming the administration, blaming the teachers), to one in which professional educators have collaborative conversations within their Professional Learning Community (PLC), based on data, to reflect on practice, exchange effective strategies, and provide differentiated support without blame or judgment (Johnson, 2002; Singleton & Linton, 2006; Thernstrom & Thernstrom, 2003). L. Darling-Hammond (1997) noted, "In order to create a cohesive community and a consensus on how to proceed, school people must have the occasion to engage in democratic discourse about the real stuff of teaching and learning" (p. 336).

Blankstein (2004) states:

> It is essential to develop the organizational norms and the personal "habits of mind" (Costa & Kallick, 2000) to dispassionately and regularly evaluate one's position relative to the ideal, and to use data-based assessments as fuel for continued improvements, hope, optimism, and action. (p. 27)

A data-driven school culture means that all members of the organization use quantitative patterns to make decisions, especially those related to programs, curriculum and instruction, and resource allocation (Noyce, Perda & Traver, 2000). Noyce et al. contend "that any district can expect gains in student achievement over time when it becomes data-driven" (p. 56).

The use of data is a research-based strategy that assists administrators and teachers in developing a culture of high expectations for all students based on evidence of student learning (Wahlstrom, 2002). Enhancing student achievement for all students as a result of developing a data-driven culture is a moral imperative that all stakeholders must embrace to make effectively advances toward closing the achievement gap. When

schools and districts begin to use data to examine equity issues related to student achievement, some of the discoveries that they make regarding their beliefs, practices, and outcomes lead them to redefine their culture and reframe their organizational structure (Johnson, 2002; Wahlstrom, 2002).

In D. Darling's (2005) review of a number of studies that examined effective teachers from a student's perspective, three areas were reported to impact student learning: positive student-teacher relationships, the teacher's responsiveness to the student's personal life, and the teacher's ability to establish a culturally responsive classroom environment. Ladson-Billings (1994) also cited characteristics of effective culturally responsive teachers and noted the importance of the teacher believing that all students could be successful, choosing to be part of the learning community, and encouraging students to do the same. Culturally responsive teachers share many of the same characteristics as those identified as effective teachers, but additionally demonstrate cultural sensitivity, promote active learning through the use of engaging interactive strategies, and help students to access information in a personally meaningful way (Irvine & Armento, 2001; Keyes et al., 2006).

Differentiated instruction recognizes that learning is influenced by prior experiences, background, interests, and learning styles (Burris & Garrity, 2008). Establishing high expectations for learning for all students, encouraging teachers to engage in student-centered collaborative conversations (professional learning communities), the effective use of data to inform instruction and programs, and incorporating culturally responsive teaching are valuable strategies for teachers and

administrators to maximize learning opportunities for every student (Burris & Garrity, 2008; Keyes et al., 2006).

Societal implications. Teachers and administrators must provide children with more than the three R's—reading, 'riting, and 'rithmetic—to equip them with the information processing skills needed to compete in a global workforce requiring 21st century learning and literacy skills (Murray, 2003). Freidman (2005) points out in his book, *The World is Flat,* that advancements in e-commerce, information technology, and communication have provided corporations around the world the opportunity to conduct business without boundaries as outsourcing and insourcing continue to gain momentum. Gerhart (1998) credited Commager (March, 1962), author and noted American historian, with the following quote from an article published in *Think* magazine, "Change does not necessarily assure [sic] progress, but progress implacably requires change. Education is essential to change, for education creates both new wants and the ability to satisfy them" (p. 129). Changes in societal needs, how we do business, how we communicate, and how we process information have changed drastically during the last 50 years and have caused educators to look at educational programs through an entirely different lens. Politicians and educators are continually forced to examine the implications of educational gaps and lagging achievement on society and the economy.

McKinsey and Company (2009) conducted a study titled *The Economic Impact of the Achievement Gap in America's Schools.* Its findings were alarming. Two noteworthy points relevant to this study are:

1. If by 2008 the United States had closed the gap between African American and Latino student performance and white student performance, the gross

domestic product would have been between $310 billion and $525 billion higher (2%–4% of the gross domestic product).

2. Closing the gap between socioeconomically disadvantaged students and the rest of the student population would have resulted in a $400 billion to $670 billion increase in gross domestic product (3%–5% of the gross domestic product). (p. 6)

Education is considered the great equalizer to bridging the gap between the rich and poor. However, if our educational system creates or perpetuates different levels, or quality, of education based on a child's zip code, ethnicity, or gender, we will find ourselves only widening the divide that already exists (Thernstrom & Thernstrom, 2003). Affluent Americans are increasingly more willing, and to some extent, expected, to enroll their children in more elite educational institutions, which they believe better position them to enroll in more elite colleges and universities (Lauder et al., 2006). Consequently, the increasing secession of affluent students from public education promotes two very different educational experiences: one for the rich and the other for everyone else.

Superintendent Jack O'Connell's unwavering commitment to closing the achievement gap was reaffirmed in his February 3, 2009 State of Education address when he expressed serious concerns about the funding and structure of our current educational system (as cited in CDE, 2009f). California, and the nation, must continue to address disparities in academic achievement between white students and students of color, or those socioeconomically disadvantaged, and equip children with the critical skills needed to meet the demands of a competitive global economy. The state's focus on ACES is aimed at meeting that need and ensuring that all schools create conditions conducive to

high levels of learning for all children. At this time, there is not sufficient data to evaluate the effectiveness or the full implications of the ACES initiative.

Fullan (2003) suggests that each individual has a responsibility—a moral purpose—to ensure that all children are educated at high levels. Fullan goes on to state, "Passion and higher order purpose are required because the effort needed is gargantuan and must be morally worth doing" (p. 18). Educators and politicians must critically examine the structures and policies that continue to perpetuate disparities in achievement, allow racism, and promote educational biases, or we will not "eradicate the achievement gap—the educational divide that continues to deny opportunity for so many" (National Urban Alliance for Effective Education, n.d., para. 7). In his third annual State of Education Address, O'Connell (2006), stated:

> In any one of California's thousands of classrooms, we could have future workers with the ability to understand a dozen different cultures and the wherewithal to connect and communicate with people all over the globe on terms they can understand. (para. 33)

O'Connell suggests that we have not yet tapped the tremendous potential that we have and goes to on to state:

> Quite simply, in the demanding global economy, the achievement gap not only threatens the future of our students, but also the future economic health and security of our state and nation. The simple yet terrible fact is that the population of students that is growing the fastest in this state is the population that is lagging the farthest behind. (para. 38)

Governance and Policies to Improve Education

Elementary and Secondary Education Act (ESEA). Addressing inequalities in education has been an important issue in education for federal, state, and local government dating back to the beginning of Cold War, during President Harry Truman's administration when technological industrialization began to reshape the skills needed to compete in the workforce. During the Eisenhower and Kennedy administrations, there were heightened concerns about improving education in the U.S. and it quickly became a priority for many vocal Americans. Inequities in access to educational opportunities and its implications on employment and the economy became a national focus (Berube, 1991).

Tension continued to escalate during the Civil Rights Movement in the early 1960s, and there was growing discontent about inequities in education; activists demanded change. President Kennedy responded to these concerns and drafted proposals to make sure that all students were guaranteed a free and appropriate education, regardless of race, religion, or background, offering an educational program that would ensure Americans were able to compete with other countries. However, in November, 1963, prior to the passage of these proposals, President Kennedy was assassinated. President Johnson reviewed and modified Kennedy's proposals, and on April 9, 1965, as part of President Johnson's War on Poverty, Congress enacted ESEA of 1965. Johnson believed that education was the key to making sure all children had options that would permit them to be productive citizens as adults (Berube, 1991).

Allocating large amounts of money to ensure access to educational resources for poor and/or minority children, this landmark legislation was considered to be the most

important educational bill of its time. Passage of the ESEA in 1965 marked the beginning of federal Head Start Programs, bilingual education, and guidance-counseling programs. Equally important, this massive bill identified special funding (Title I) to support schools in addressing inequalities in educational programs and marked the shift from states and LEAs receiving unrestricted federal funding to the receipt of categorical dollars that came with many restrictions on how the money could be spent (Antunez, 2002).

Since its initial passage in 1965, ESEA has been amended and reauthorized many times in an effort to address the educational needs of different groups of children. In 1981, ESEA reauthorized as the Education Consolidation and Improvement Act. In 1984 it reauthorized as Education Amendments of 1984. Shortly thereafter, ESEA reauthorized as the Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988, which was especially noteworthy as it marked the ability for districts to use Title I funds for all students in schools that met the criteria to be designated schoolwide Improving America's Schools Act in 1994 brought yet another reauthorization to ESEA and was further expanded in 1997 by adding the Individuals with Disabilities Act. Finally, in 2001, ESEA was reauthorized as the No Child Left Behind Act, Public Law 107-110 (Center for Law and Education, 2010).

NCLB. President George W. Bush signed the NCLB Act on January 8, 2002. Its passage reauthorized the ESEA and marked an overwhelming bipartisan commitment to improve education for the neediest children in America. In response to Americans' growing sense of urgency to address the inequities in access and the disparities in learning for children of color and low-income families, the Bush administration outlined

legislation that required districts to ensure 100% of students reach proficiency by the year 2014 (Center for Law and Education, 2010).

In an effort to assist districts in meeting this lofty goal and ensure that all students made AYP, the NCLB Act provided a framework for each state to: (a) strategically address raising student achievement, (b) ensure that the lowest performing children had access to the most qualified teachers, (c) close the achievement gap, (d) establish academic standards and annual standardized testing as part of the state's accountability system, (e) provide supplemental educational services (free tutoring),- and (f) offer parental choice to families that attend underperforming schools (Center for Law and Education, 2010). Togneri and Anderson (2003) wrote:

> Our nation has a moral imperative to close the achievement gap between low income students and their more advantaged peers. The No Child Left Behind Act makes this a legal requirement as well. Yet improving learning opportunities for all children will require more than individual talents or school-by-school efforts. It will demand system-wide approaches that touch every child in every school in every district across the nation. (p. 1)

Since passage of NCLB in 2002, federal funding for education increased from $42.2 billion in 2001 to $54.4 billion in 2007 (USDE, 2006). Additionally, yearly federal funding for reading increased by more than four times, from $286 million to $1.2 billion, including establishing the $1 billion per year Reading First Initiative (Grunwald, 2006). The Reading First Initiative, a scientifically research-based reading program, was designed to ensure that all students learn to read at or above grade level by the end of

third grade. The major components of the Reading First Program required states to (USDE, Office of Elementary and Secondary Education, 2002):

- ensure access to state-adopted core curriculum and supplemental materials;
- promote comprehensive professional development opportunities for teachers and administrators to expertly implement the program and incorporate differentiation strategies and resource materials to meet the needs of all students;
- support the use of reliable classroom-based formative assessments, and valid screening and diagnostic tools to regularly assess and monitor student achievement; and
- encourage teachers to meet collaboratively to conduct student-centered conversations that are based on data. (pp. 6–7)

Between 2002 and 2005, the Reading First program allowed states to submit an application to receive a formula grant. The states' proposals targeted students in kindergarten through third grade and was grounded in scientifically based research on effective reading programs. Reading First awards were made to state educational agencies the applications of which provided a comprehensive implementation plan that incorporated critical program components, as identified above, and that showed the most promise to improve effectively reading achievement (USDE, Office of Elementary and Secondary Education, 2002).

California's Reading First Plan

Eligibility and assurances. Reading First legislation was formulated based on the findings and recommendations from the National Reading Panel in its April 2000, *Report*

of the National Reading Panel: Report of the Subgroups (Allen, 2008; Antunez, 2002). Section 1208 (3) of Title I explicitly discusses systematic instruction in phonemic awareness, phonics, vocabulary development, reading fluency, and reading comprehension as being research-based areas of focus on to improve early reading instruction (National Reading Panel [NRP], 2000; Snow, Burns, & Griffin, 1998). As part of the Reading First Initiative, the State of California was slated to receive approximately $900 million between 2002 and 2008 to assist some of lowest performing schools to improve student achievement in English/language arts.

LEA eligibility for a Reading First grant in California was based on need. LEAs that had (a) 40% or more of their second and third grade students scoring below basic and far below basic on the STAR CST reading assessment, and (b) at least 60% of students that are Title I eligible based on socioeconomic status were considered to be high need (Reading First, California Technical Assistance Center, 2003). Reading First grant recipients would receive funding for 3 years, with the possibility of extending funding for an additional 3 years based on satisfactory student progress in reading. The Reading First funds could be used to purchase supplemental curricular materials, providing professional development and technical assistance for principals and teachers and data management systems to monitor student progress.

The California Reading First Plan is founded on a set of assurances to which both the LEA and school must agree. They are designed to maximize success of Reading First Program implementation and ensure “full implementation with fidelity to a comprehensive research-based reading program” (Haager et al., 2009, p. 1). Transformational reform in reading instruction that results in substantial improvement in

reading achievement for all children will take more than a cursory agreement. Reading First, California Technical Assistance Center (2003) wrote, “Success occurs when these Assurances are fully implemented, sustained over time, and become the everyday instructional practices for all students in every classroom, at every grade level, and throughout every year” (p. 9).

Key components. The Reading First formula grant required states to demonstrate how they would support LEAs in developing and implementing research-based instructional plans that would provide a comprehensive approach to K-3 reading instruction. The state provides technical assistance to LEAs through the support of the California Technical Assistance Center (CTAC) and nine Regional Technical Assistance Centers. The technical assistance centers assist LEAs in ascertaining supplemental resource materials; support materials; professional development for teachers, administrators, and coaches; and monitoring program effectiveness through regular site visitations, walkthroughs, and consultation (California’s Reading First Plan, 2002).

In an effort to build on existing legislated reading programs, California required all LEAs to develop plans and agree to the assurances. The assurances addressed three major areas of the State Educational Agency plan: (a) full implementation of a state-adopted English-language arts instructional program; (b) efficient use of classroom-based instructional assessments for the purpose of conducting screenings and diagnostics, monitoring student progress, and measuring outcomes; and (c) the provision of ongoing professional development for teachers and administrators in effective methods and strategies for reading instruction (California’s Reading First Plan, 2002).

The LEA assurances (see Appendix F) dictate a prescribed approach to designing a sound instructional program that addresses curriculum content, teacher collaboration, and the effective use of data, comprehensive professional development, and coaching to provide expert follow-up assistance and support. California's Reading First Plan (2002) is a reading reform effort that attempts to bring coherence to district policies and instructional practices to LEAs throughout the state. It is clear that adherence to the Reading First assurances greatly influence the policies, practices, and expectations of Reading First districts (Reading First, CTAC, 2003).

Curriculum content, pacing, and instructional minutes. California's Reading First Assurances provide very specific expectations requiring (Reading First, CTAC, 2003):

- District adoption of a state adopted English-language arts program
- Full implementation of the adopted English-language arts program, including use of supplemental materials to support English learners and students at-risk
- Dedicated instructional time for each grade level K-3, as outlined in the California language arts framework
- Development and use of a pacing schedule by all K-3 teachers
- Development and implementation of an assessment plan that includes classroom-based assessments to conduct frequent progress monitoring. (p. 29)

Researchers agree that students need a comprehensive reading-language arts program that is based on research, high standards, and incorporate the five essential elements of an effective reading program (Foorman, Francis, Shaywitz, Shaywitz, & Fletcher, 1997; Ozturk & Debelak, n.d.; Shaywitz, 2003). In December 1997, California

adopted academic content standards in English-language arts. This framework was recognized as one of the most rigorous and comprehensive in the nation (Finn et al., 2006). These world-class content standards laid the foundation for outlining criteria for the reading-language arts and English language development program adoptions in 2002 (California State Board of Education, 1998, 2006).

In January, 2002, California adopted two comprehensive K-6 English-language arts programs: SRA Open Court Reading 2000/2002 and Houghton-Mifflin's California Edition, Reading: A Legacy of Literacy 2003. Each of the programs systemically and explicitly address phonemic awareness, phonics, reading fluency, vocabulary development, and reading comprehension, which are identified as the five essential components of reading (Snow et al., 1998; National Reading Panel, 2000).

Both Houghton Mifflin and SRA Open Court reading programs are comprehensive, empirically-based, and have incorporated pacing guides, planning calendars, curriculum maps, and additional resources for remediation or acceleration support. One of the Reading First grant requirements was that LEAs must have already adopted one of the two state approved English-language arts reading programs (Reading First, CTAC, 2003).

The curriculum pacing guide is intended as a teacher resource to help ensure that all students have equitable access to pertinent course materials and content (CDE, 2010c). The pacing guide is oftentimes formulated and modified from the publisher's planning and pacing guide. They sequence the materials and content standards in a logical manner. The pacing guide includes the assessment schedule to promote regularly scheduled formative assessments to monitor student progress in an ongoing and timely manner. It is

important that the pace of the suggested guide be engaging, and yet it must also provide enough flexibility to allow teachers to slow down when necessary to provide students instructional support as needed. It should also be noted that while the pacing guide may help to ensure that students are exposed to the broad base of content knowledge that they will be held accountable for on the standardized test, the depth of the instructional program oftentimes suffers (Berliner, 1990).

The Center on Education Policy (2008) reported that since NCLB has gone into effect, 44% of LEAs nationwide have increased instructional minutes in English-language arts, 40% of the LEAs increased instructional time for English-language arts by 50% or more, while another 30% increased instruction 25% to 49%. The California English-language arts framework recommends specific amounts of time for core instruction, universal access time for differentiation, intervention for students at-risk, and English language development. Students in Grades K-5 may spend between 2 and 3 hours per day for English-language arts instruction (CDE, 2010c). California has identified dedicated instructional minutes for English-language arts and mathematics as one of the nine essential program components for all LEAs in California. When addressing equitable access, it is important to note that establishing district-wide expectations for dedicated instructional minutes does not ensure or promote increased student achievement (Cotton, 1989). Researchers agree that there must be a significant focus on the quality of instruction and the efficient use of academic learning time to result in improved learning (Marzano, 2003; Silva, 2007; Walberg, 1988).

Teacher collaboration and effective use of data. Reading First assurances (Reading First, CTAC, 2003) that expressly discuss collaboration and implementation of

an assessment plan include: (a) assure all sites support ongoing collaborative, grade-level meetings that are student-centered and data driven; (b) develop and implement an assessment plan that provides regular formative assessments based on the adopted instructional program; and (c) use assessment data to guide the monitoring of student progress and program decision making. (pp.11–21)

Elmore (2000) reminds us that working in isolation is the enemy of improvement. Effective teacher collaboration is dependent upon building a purposeful community in which each individual is committed to the change effort, results-oriented, and driven by a moral purpose to do the right thing for all children (DuFour, Eaker, & DuFour, 2005; Fullan, 1993). Marzano et al. (2005) describe this as developing "a collective efficacy and capacity to develop and use assets to accomplish purpose and produce outcomes that matter to all community members through agreed upon processes" (p. 99).

Purposeful, strategic collaboration is the foundational core of a functional PLC, which is a vehicle to exchange ideas about practice, group think resolution to challenges that are presented, and design action steps to improve student learning (DuFour & Eaker, 1998). While the collaborative is results-oriented, its success is based on the actions that the members take. The power of the PLC is in the willingness and understanding of the necessity to monitor continually student progress and be ready to act based on those findings (DuFour, Dufour, Eaker, & Karhanek, 2004). Ongoing collaboration helps to build coherence, as it focuses all of its members on the shared vision and keeps their eyes on the goals (Blankstein, 2004; Eaker et al., 2002). A common language is developed and collegiality increases as individuals work together to strengthen the educational program.

DuFour et al. (2005) suggest that the most powerful professional development is job-embedded and the best training comes from doing the work of a PLC. DuFour and Eaker (1998) wrote:

> The purpose of staff development is to help personnel become more individually and collectively effective in helping all students achieve the intended results of their education. Therefore, attention to developing the collective ability of the faculty to solve problems and achieve goals should be assigned a higher priority than independent individual growth. (p. 276)

Collaboration that is not goal oriented, student-centered, and evidence-based, may quickly propagate attitudes and behaviors that surface barriers, real and imagined, to improving learning and addressing the unique needs and challenges of African American students and English language learners (Johnson, 2002; Ladson-Billings, 1994).

Researchers strongly agree that incorporation of a formative assessment system to monitor frequently student progress is a critical component to help teachers provide ongoing support to improve student learning outcomes and instructional efficacy (Ainsworth et al., 2007; Blankstein, 2004; Blink, 2007; Johnson, 2002; Popham, 2008). Instructional decision making based on data indicate students need, strengthens professional learning communities and enables teachers and administrators to act based on evidence as opposed to opinions (Ainsworth et al., 2007; Thernstrom & Thernstrom, 2003). Black and William (1998) conducted an extensive meta-analysis that examined the effect of the use of formative assessments in the classroom. After studying 250 reports, they found there was a statistically significant effect size of between 0.4 and 0.7 supporting the premise that a relationship exists between the use of formative assessment

and increased student learning. Black and William found, “Improved formative assessment helps low achievers more than other students—and so reduces the range of achievement while raising achievement overall” (p. 141).

In *Failure is Not an Option,* Blankstein (2004) cited the effective use of data as one of six principles found in high-performing schools that positively impact instructional programs. Establishing and maintaining a data-driven, results-oriented PLC that promotes increased student learning requires clearly articulated, measureable goals for learning and improvement for all students; ongoing progress monitoring and evaluation of student learning and program effectiveness; and a shared responsibility to help every child maximize his or her learning potential (Blankstein, 2004; Blink, 2007; DuFour et al., 2004).

LEAs participating in the Reading First program are required to implement a data management system, administer curriculum-embedded assessments every 4 to 6 weeks, conduct data analysis meetings with grade-level teams (PLCs), and use data to modify instruction and provide support that promotes continuous improvement for all students. Building capacity of teachers and administrators to implement successfully and sustain this work requires development of a comprehensive approach to professional development that expands their expertise and knowledge in the effective use of the curriculum program and supplemental resources. Additionally, it is important that teachers and administrators are provided professional development and coaching support in effective differentiation and instructional strategies that target at-risk students’ needs.

Professional development. Researchers agree that quality teaching is an important variable in improving student learning (L. Darling-Hammond, 1997; National Education

Goals Panel, 2000; Sparks, 2002; Wenglinsky, 2000). Ensuring teacher quality and improving instructional efficacy are foundational premises of NCLB and essential components of California's Reading First Plan (Reading First, CTAC, 2003). Comprehensive professional development provides experienced and new teachers and administrators additional knowledge, skills, and practice to improve subject matter competency (CDE, 2006). Standard six, developing as a professional educator, of the California Standards for the Teaching Profession, clearly outlines expectations for teachers to set professional goals that incorporate ongoing professional development that promote continuous improvement of their practice (CDE, 1997).

Provisions for professional development as part of California's Reading First Plan are directly addressed in three of the Reading First assurances and read as follows (Reading First, CTAC, 2003):

- Require, in Year 1, or the first year the teachers work at a Reading First school site, participation of all teachers (K-3 and K-12 special education) in a state approved AB466 program (with LEA responsible for 80 hours of practicum).
- Require, in Year 1, or the first year the principals work at a Reading First school site, participation of all principals (K-3 elementary schools) in state approved AB 75 Module 1 curriculum.
- Require in Years 2 and 3, all teachers participate in a comparable AB466 professional development program for advancement of skills in use of adopted program and instructional strategies. (p. 29)

AB 466 (reauthorized as SB 472) provides teachers a 5-day/40-hour grade level–specific training in the LEAs adopted English-language arts program. The beginning level training focuses much of the time on the first 6 to 10 weeks of instruction and includes an in-depth look at instructional core and supplemental materials, as well as diagnostic, assessment, and support materials. Teachers are also provided information on summative assessments and other program components to use throughout the year. The training, conducted by state approved providers, offered an emphasis on effective instructional strategies for the five essential elements of reading (Reading First, CTAC, 2003).

Teachers were encouraged to complete 80 hours of practicum within 1 year of completion of the 40-hour training. Use of a log or portfolio provided evidence of implementation in four areas: grade-level work, assessments, additional English-language arts professional development, and English-language arts special events. The LEA is responsible for providing opportunities for additional support and training during the course of the year in which teachers can participate to get their practicum hours. Although the State of California provided reimbursement of up to $1,250 to LEAs for the cost of the initial training, LEAs receiving Reading First grant funds were required to use grant funding to pay for the training. Teachers at Reading First schools were required to attend four levels of training, years 1 through 4, to deepen their implementation of the language arts instructional program (California's Reading First Plan, 2002).

Site administrators are required to complete the AB 75 (reauthorized as AB 430) 5-day/40-hours training. The administrative training addressed learning pedagogies, effective use of data, alignment of standards-based lessons, assignments, assessments,

and incorporation of technology in instructional leadership. Administrators were also required to complete the 80-hours practicum upon completion of the 40-hours training and provide evidence of purposeful leadership activities, including collaboration, diversity, use of assessment data, parental involvement activities, and development of a school plan for improving achievement (Reading First, CTAC, 2003).

The AB 466 and AB 75 training were touted as California's most comprehensive professional development programs (CDE, 2006). Yet, there is evidence that suggests that even this large-scale professional development effort has areas of concern. The Reading First end-of-year surveys found that teachers and administrators who attended the 40-hours training had little follow-up training or support throughout the year (Haager et al., 2009). Additionally, the practicum was often done in isolation without the guidance or benefit of trained personnel to reinforce the individual's learning.

Lack of follow-up training usually results in weak implementation of learned strategies into daily practice (Moran, 2007). WestEd's (2000) report *Teachers Who Learn, Kids Who Achieve: A Look at the Schools With Model Professional Development* cites shared characteristics of high performing schools: clearly articulated goals, multiple professional development opportunities were offered, teachers and administrators actively engaged in student-centered collaboration, school culture embraced professional development as a priority and earmarked time to make sure it occurred, and the effective use of student achievement data to inform instruction and decision making.

Quality teaching and skillful leadership will require a dramatically different approach to professional development (Sparks, 2002). More specifically, professional development that results in improved student achievement in reading will require a

school-wide commitment to continuous improvement, collaboration (PLCs), the use of data and the support of master teachers that provide demonstration lessons, workshops, and peer coaching (King et al., 2006; Learning First Alliance, 1998, 2000). Researchers agree that the implementation of PLCs and coaching are two promising practices that help to shift content-focused professional development to professional learning that becomes a defining part of a school's culture and how it educates all children at high levels (CDE, 2006; King et al., 2006; Learning First Alliance, 1998, 2000; Sparks, 2002).

Coaching support. Becker (n.d.), author of *Peer Coaching for Improvement of Teaching and Learning*, wrote:

> To improve professional practices, and consequently to improve student learning, teachers need accessible opportunities and models for collaboration, sharing of ideas, feedback and assistance with their practice so that students may have the most optimal situations for learning, achievement, and success in schools. (para. 9)

Coaching offers teachers a professional development model that moves them away from the one-shot workshops that seldom offer follow-up support (Learning Point Associates, 2004; Moran, 2007). Additionally, there are typically no provisions for in-class support to assist teachers in the implementation of the strategies introduced in the training (Learning Point Associates, 2004; Moran, 2007). Michael Fullan referenced the lack of follow-up and support after workshops as "the greatest single problem in contemporary professional development" (as cited in Leggett & Hoyle, 1987, p. 16).

The use of teacher coaches "to develop and implement practices and strategies for professional development" (USDE, Office of Elementary and Secondary Education,

2002, p. 7) is strongly recommended in *Guidance for the Reading First Program* as an integral part of the development of an effective reading program. For LEAs that decide to use Reading First funding to incorporate coaches into their reading program, optional Reading First assurances suggest (Reading First, CTAC, 2003):

- Teachers and coaches engage in frequent coaching meetings.
- Coaches have full support and access to conduct regular classroom observations
- Assure coaches are provided appropriate supplemental resources and ongoing training to build capacity and expertise in the adopted reading program
- Assign an administrative coach coordinator to manage and monitor Reading First implementation, data collection and analysis, coaching activities, professional development, and support. (p. 29)

The instructional coaching model's primary goal is to improve instructional practices, ultimately improving student learning (Learning Point Associates, 2004; Moran, 2007). To accomplish this, Moran (2007) suggests that coaching models promote: (a) collaboration as part of the school culture, (b) student-centered and data driven inquiry by individuals and groups to build capacity as reflective practitioners, and (c) comprehensive formal and informal professional development opportunities to increase knowledge in the use of differentiation components of the reading program and expertise in effective instructional strategies.

A full-time Reading First coach may support implementation of the adopted English-language arts program with up to 30 teachers (Reading First, CTAC, 2003). Coaching responsibilities may include conducting demonstration lessons, facilitating peer

observations, providing individual and group professional development, facilitating grade level or department meetings/PLCs, assist teachers in the analysis and effective use of data to diagnose reading problems and monitor student progress, and incorporating differentiation strategies to meet the needs of English learners and students at risk (Learning Point Associates, 2004; Moran, 2007).

Researchers have recognized coaching as an integral component of an effective professional development plan (Learning First Alliance, 1998, 2000; Moats, 1999; Moran, 2007). Coaching provides teachers individualized assistance and support from one of their peers in a classroom setting. To maximize effectiveness, it is important that coaches establish and maintain trusting relationships, exercise good listening skills, and create a positive environment conducive to adult learning (Learning Point Associates, 2004). Literacy coaches also benefit from being sensitive to the culture and climate of the organization and from openness to varying perspectives.

Coaches can be effectual change agents in an inquiry-based organization (Learning Point Associates, 2004). While it is critical that they possess the knowledge and expertise to assume their job, it is equally important that they receive the necessary time for appropriate training and ongoing support from the LEA and site administrator to increase their chances for success (Shanklin, 2007).

Leadership. The active role of leadership, specifically site administrators, in the literacy reform process is critical to its success (Marzano, 2003). Reading First leadership assurances require more than merely monitoring implementation of the program (Reading First, CTAC, 2003). Leadership responsibilities include managing technical assistance providers, setting instructional expectations for teachers, working closely with the coach

to support teachers in the full implementation of the adopted reading-language arts program, ensuring accurate and frequent assessments, supporting teachers in the effective use of data to improve teaching and learning, and promoting student-centered teacher collaboration to monitor student progress. Reading First, CTAC (2003) stated:

> In schools where leadership is knowledgeable about content, where the site administrators are familiar with the structure, purpose, and use of the assessment data, and where there is active support for making continuous improvements in instruction, higher levels of implementation, skilled teaching, and student achievement are found. (p. 20)

Leadership influences and connects teachers, students, and school-wide reform goals (Fullan, 2003; Marzano, 2003).

Marzano (2003) cited several researchers who suggested a close relationship exists between skillful leadership and:

1. articulating a clear mission and goals (Bamburg & Andrews, 1990; Duke, 1982);
2. school climate (Griffith, 2000; Villani, 1996);
3. teacher attitudes (Oakes, 1989; Purkey & Smith, 1983; Rutter, Maughan, Mortimore, Ouston, & Smith, 1979);
4. instructional practices (Brookover et al., 1978; McDill, Rigsby, & Meyers, 1969; Miller & Sayre, 1986);
5. program implementation (Bossert, Dwyer, Rowan, & Lee, 1982; Cohen & Miller, 1980; Eberts & Stone, 1988; Glasman & Binianimov, 1981; Oakes, 1989); and

6. ensuring access for all students to high quality learning opportunities (Duke & Canady, 1991; Dwyer, 1986; Murphy & Hallinger, 1989). (p. 172)

There is no denying the importance of the principal's role and responsibilities in the reform effort; however, "evidence supports the assertion that substantive change must be supported both by administrators and teachers" (Marzano, 2003, p. 174). Building a culture of continuous improvement in literacy achievement for all children is work that is too important and too much for any one individual. The development of a purposeful community of leaders, teachers, and administrators, in which groups-teams of people in the organization work collaboratively toward shared goals and in which behaviors are aligned with espoused beliefs about the ability of all children to learn at high levels is essential (Fullan, 2003, 2005; Marzano, 2003; Marzano et al., 2005). It is this distributed leadership approach that helps organizations move past the implementation stage to the point where principles and practices become an institutionalized part of the organizational culture (Blankstein, 2004).

Program evaluation. Evaluation requirements incorporated in the California Reading First plan provide for several partnerships to collect data and conduct ongoing data analysis to monitor and report student achievement, level of program implementation, and professional development participation and effectiveness. In addition to the data collected by LEAs, CTAC, and Regional Technical Assistance Centers, the California State Board of Education contracted with Educational Data Systems to provide yearly external evaluations of the program beginning in 2003 (Haager et al., 2009).

In November 2009, Educational Data Systems released its final evaluation report of the Reading First Program, *The California Reading First Year 7 Evaluation Report* (Haager et al., 2009). This is a cumulative report based on data collected from 110 LEAs since the inception of the program in California. It evaluates implementation of the Reading First Program between the 2002–2003 school year and the 2008–2009 school year. After a thorough multiyear synthesis of the data, the key findings of EDS were:

1. When compared to non-Reading First schools, Reading First schools evidenced consistent achievement gains for students in historically low-performing, socioeconomically disadvantaged schools.
2. The fidelity of implementation influenced the achievement outcomes.
3. The various metrics used to monitor reading achievement, including the RFAI, indicate that yearly growth remained statistically significant.
4. Reading First strategies have positively impacted and supported students across all performance levels, far below basic through advanced.
5. Reading achievement for students in Grades 4 and 5 show significantly greater growth in Reading First schools as compared to non-Reading First schools.
6. Reading First strategies have had a positive impact on reading achievement for English learners.
7. The RFII indicated a decline in the degree of implementation in 2009.
8. Program effectiveness is influenced by principal support and teacher perceptions.

9. Structured professional development has helped to build capacity among administrators and teachers.
10. The integration of Reading First components, including collaborative planning time, designated instructional block, research-based curriculum, coaching, and professional development have created a sustainable, comprehensive reading program. (pp. 2–3)

The findings from the 7-year report demonstrates that the key components outlined in the Reading First assurances (research-based curricula, coaching, collaboration, and professional development) are essential ingredients of structuring a comprehensive reading-language arts program (Haager et al., 2009). Additionally, it is plausible that the strong correlation between depth of implementation and growth in achievement reinforce the importance of the principal's role in establishing a supportive environment that promotes high expectations for teacher and student learning.

Though these findings are specifically applicable to the evaluation of the California Reading First Plan, the information may be relevant in reporting the findings of the evaluation of Reading First Program implementation in the Lancaster School District.

Implementation of the Reading First Initiative in Lancaster School District

The information contained in this section was incorporated in the original Reading First subgrant application dated April 19, 2004, submitted to the state of California by Lancaster School District. The application provided a plan to ensure that all the essential components to improve reading instruction, as outlined by the Reading First Initiative, were available to six schools within the district identified as high need based

on poor student achievement and a high percentage of socioeconomically disadvantaged students.

Lancaster School District (2004) established a district-wide Reading First Leadership Team to serve as advisors on the development of the plan and lead the implementation process. The leadership team consisted of the:

1. Director of Curriculum, Instruction and Assessment
2. Director of Special Programs (Title I and English Language Learner Programs)
3. Director of Student Services (Special Education Program)
4. Library and Media Specialist
5. Principal Liaison
6. Two Kindergarten through Grade 3 Teacher Liaisons
7. School Site Council Parent Liaison
8. Reading First Coordinator

The leadership team continued to take advisory responsibility to support monitoring of the plan and the ongoing assessment and analysis of student reading achievement data during the implementation period. Leadership team meetings were held three to four times per year to assess and build capacity of district and school personnel to implement fully the essential components of the Reading First Initiative.

Selection of schools and funding. Eight of the district's 12 elementary schools were identified as eligible participants for the Reading First subgrant. In early April 2004, district representatives met with principals of the eight eligible schools to review the grant criteria, establish selection and ranking criteria, and analyze and compare

achievement data. Grant funding was only available for three fourths of the district's eight eligible schools (six schools total). The ranking process provided points for the following (California's Reading First Plan, 2002):

- State rank on 2003 API
- Schools not meeting the Spring 2003 API for comparable groups
- Schools not meeting the Spring 2003 API school-wide
- Percentage of students in Grades 2 and 3 who did not meet the proficient standard on the CST in 2003
- Number of students in kindergarten through third grade
- Number of teachers in kindergarten through third grade
- Percentage of English language learners in kindergarten through third grade
- Placement of a Special Day Class at the site
- Percentage of students on the National School Lunch Program (pp. 20–21)

Once the eight schools were rank ordered, the six highest priority schools were identified for inclusion in the Reading First subgrant application proposal. For purposes of this study, the schools have been identified as follows: Reading First School 1, Reading First School 2, Reading First School 3, Reading First School 4, Reading First School 5, and Reading First School 6. These six schools represent half of the total (12) elementary schools in the district. Tables 4 and 5 show 2003 demographic and API information for Reading First Schools and non-Reading First Schools in the Lancaster School District.

Table 4

Lancaster School District 2003 Demographic and API Data

Reading First Schools					
Rank Order	White/API	African American/ API	Hispanic/ API	English Language Learners/API	Socioeconomically Disadvantaged/API
School 1 632 API	25%/678	25%/599	44%/607	20%	67%/593
School 2 618 API	18%/671	28%/576	51%/618	29%	84%/609
School 3 613 API	31%/678	35%/565	30%/587	11%	73%/590
School 4 629 API	24%/710	33%/555	40%/635	16%	74%/603
School 5 624 API	22%/703	29%/589	46%/596	26%	82%/599
School 6 652 API	25%/717	33%/592	40%/646	16%	70%/615

Note. Adapted from the Academic Performance Index data available online through CDE Dataquest at www.cde.ca.gov/dataquest/

Table 5

Lancaster School District 2003 Demographic and API Data

Non-Reading First Schools					
Rank Order	White/API	African American/ API	Hispanic/ API	English Language Learners/API	Socio-Economically Disadvantaged /API
School 1 664 API	30%/756	37%/574	29%/662	5%	57%/613
School 2 670 API	31%/720	33%/599	32%/673	12%	66%/638
School 3 672 API	49%/721	21%/582	27%/625	7%	49%/604
School 4 702 API	44%/732	22%/668	30%/679	7%	51%/659

(*table continues*)

Non-Reading First Schools					
Rank Order	White/API	African American/ API	Hispanic/ API	English Language Learners/API	Socio-Economically Disadvantaged /API
School 5 710 API	37%/768	26%/622	33%/695	9%	53%/663
School 6 715 API	51%/723	20%/648	20%/693	8%	30%/697

Note. Adapted from the Academic Performance Index data of percentage of students proficient or above on California Standards Test. Available online through CDE Dataquest at www.cde.ca.gov/dataquest/

The data above reflect that all of the Reading First schools had between 67% and 84% of students that were identified as socioeconomically disadvantaged, with all schools exceeding the district average of 66%. Though the data indicate that all schools had significant achievement gaps among white students and their African American, Hispanic, and socioeconomically disadvantaged peers, the Reading First schools also had considerably higher percentages of English language learners. It is important to note that subsequent to submittal of the grant proposal but prior to program implementation, Lancaster School District allowed Reading First School 2 to opt out of the Reading First Program. This allowed non-Reading First School 1 to participate in the Reading First Program (Lancaster School District, 2004).

In the 2003–2004 school year, 182 kindergarten through third grade teachers (including special education teachers) were eligible to participate in year one Reading First implementation at the six Reading First schools. The requested allocation per teacher was $6,500 per year, which totaled $1.183 million; for a 3-year period, $3.549 million was provided to support improving student achievement and closing the achievement gap at the lowest performing schools in the district (Lancaster School District, 2004).

The Reading First subgrant provided a framework for the district to create a cohesive, comprehensive literacy plan. All site administrators at each of the six eligible schools reviewed and agreed to abide by the school site assurances (see Appendix G). Funding allowed the purchase of Houghton Mifflin supplemental materials, assessments and data management software, intensive professional development (AB466 teacher training and AB75 administrator training), and district and site literacy coaches for each of the six eligible Reading First schools (California's Reading First Plan, 2002).

Implementation and monitoring plan. Implementation, training, support, and monitoring efforts began in November 2003, with the district board of education's adoption of the California Edition Houghton Mifflin Reading: *A Legacy of Literacy 2003*, a scientifically research-based program for kindergarten through Grade 5. Immediately following the adoption, capacity building efforts began. They included monthly staff and grade-level collaboration meetings to support articulation; classroom monitoring by principals; attendance at an educational summit in April, 2004, by school site leadership teams targeting the change process; and monthly meetings of the Reading First Leadership Team to refine implementation and improve monitoring efforts (Lancaster School District, 2004).

In the 2004–2005 school year, three full-time literacy coaches provided teachers and administrators implementation and monitoring support in multiple ways: professional development, classroom demonstration lessons, training and support on the analysis and effective use of data at staff and grade level meetings, and as a resource for the full implementation of the core program with fidelity. The coaches were identified for their exemplary instructional practices and were assigned to two schools, each resulting in a

teacher to coach ratio of approximately 30:1. The district lead coach and site literacy coaches received specialized training in cognitive coaching, assessment, data analysis, and effective strategies for English language learners and students at-risk to build their capacity. The district expanded coaching support to one coach for each Reading First site.

Grade-level curriculum pacing guides were developed during the first year of implementation for all Reading First schools that provided a structured timeline to guide the instructional focus. The pacing guides identified weekly themes, activities, resources, and skills in the Houghton Mifflin series to guide lesson planning for teachers. The grant proposal also included the district's commitment to allocate a minimum of 2 ½ hours to language arts instruction in first through third grade daily, and 1 hour in kindergarten (all schools offered a half-day program consisting of 200 instructional minutes daily). The shared focus and dedicated instructional time provided a platform for collaborative conversations to occur during which teachers could exchange effective strategies to implement fully the language arts program, increase student engagement, and improve student learning (California's Reading First Plan, 2002).

Instructional leadership. The district was committed to meeting the Reading First subgrant assurances and adhering to the full implementation of the Houghton Mifflin program. District and site administrators monitored classrooms and grade-level meetings, analyzed data, and worked closely with literacy coaches to plan specialized site professional development to ensure compliance and maximize implementation efforts at all levels. District leadership required all Reading First schools to make a concerted effort to afford teachers protected, uninterrupted instructional time for language arts (Lancaster School District, 2004).

Comprehensive professional development opportunities were offered that targeted building capacity of instructional leaders. Administrators were trained on data analysis, the effective use of data to inform instruction and decision making, coherent implementation of the Houghton Mifflin program (AB75/AB430), and cognitive coaching. The district and site administrators' role was to establish a continuous improvement culture and high expectations for learning (Reading First, CTAC, 2003).

Professional development plan. The importance of high quality professional development for teachers and administrators is well documented (National Reading Panel, 2000; Snow et al., 1998). Focused, consistent, and tiered staff development leads to improved instruction and increased student achievement (Dozier, 2006; Dozier, Johnston, & Rogers, 2006; Haycock, 1998). As a result, the district made research-based professional development the cornerstone of its reform efforts. Previous district professional development efforts included Results, Explicit Direct Instruction (Data Works), Ruby Payne's A Framework for Understanding Poverty, Thinking Maps, and Write From the Beginning training. With the adoption of Houghton Mifflin in the 2002–2003 school year, the district was well positioned to maximize the Reading First funds by intensifying its professional development efforts (Reading First, CTAC, 2003).

Beginning in the 2004–2005 school year, the district contracted with approved providers to offer teachers 40 hours of professional development opportunities that trained them in the deep implementation of the Houghton Mifflin program (AB466/SB472), including the appropriate utilization of all supplemental materials and differentiation strategies to meet effectively the needs of English language learners and students at-risk. Additionally, an 80-hour follow-up practicum was designed and taught

by literacy coaches. Of the 80-hour practicum requirement, 40 were allocated to guided grade-level meetings that focused on analysis of data and examination of student work. Each successive year, every teacher at a Reading First school was expected to attend the next level of training. During the grant period, teachers at Reading First schools completed multiple levels of the AB466/SB472 training—initial, advanced, and mastery training—with the intent of developing capacity to sustain literacy reform efforts and program coherence (Reading First, CTAC, 2003).

The district's professional development plan embraced the tenets in *School Instructional Program Coherence: Benefits and Challenges* (Newmann, Smith, Allensworth, & Bryk, 2001) and *Every Child Reading: A Professional Development Guide* (Learning First Alliance, 2000), which include: (a) involving everyone who affects student learning; (b) closely aligning students' standards, curricular frameworks, textbooks, instructional programs, and assessments; (c) embedding adequate time within the school day for professional development and collaboration; (d) regularly employing the expertise of colleagues, mentors, and outside experts; (e) providing strong instructional leadership; and (f) maintaining a long-range commitment to a fiscally sound staff development plan.

The district utilized a professional development and staff information management system (PDExpress) to establish a professional development database to track participation of teachers and administrators in district and site training. The data was utilized to monitor Reading First professional development participation and inform professional development planning decisions for the upcoming year (Lancaster School District, 2004).

Assessment plan. The district's assessment committee and the Reading First leadership team worked together to determine the appropriate assessments to provide screening, diagnosis, and monitoring of student progress. It was decided that the district would adopt the recommended list of assessments for California's Reading First LEAs (see Appendix H). It was decided that the district would adhere to the assessment schedule for kindergarten through Grade 3 requiring formative assessments be administered every 6 to 8 weeks (see Appendix I). Literacy coaches supported teachers in using assessment data and provided ongoing support and monitoring to ensure timely administration and data collection (Reading First, CTAC, 2003).

Teachers administered the assessments and scored them using the Online Assessment Reporting System (OARS) data management program. The collective data from curriculum-embedded assessments were disaggregated and results were shared with teachers at grade-level meetings. Student data were provided to teachers to monitor individual student progress. Data meeting discussions addressed student mastery of fluency, comprehension, checking skills, spelling, vocabulary, and writing that could be measured by grade level, class, or subgroup (white, African American, English language learners, and Hispanic). The intent of the data meetings was to identify strengths and areas of concerns and to determine appropriate remediation or modifications to instructional programs that would increase student learning. Principals and teachers used the data to inform intervention programs or as part of the school's extended learning opportunities offered before or after school. The district also used STAR summative data to gauge further and compare end-of-year student progress and measure effectiveness of their literacy reform efforts (Lancaster School District, 2004).

Evaluation. To monitor internally improvement and progress of kindergarten through third grade students reading at or above grade level standards at the end of each year, a variety of outcome assessments were used. Selected assessments included unit assessments provided by the state, elements of the STAR program (English-language arts CST—ELA CST and California Achievement Test 6, and California English Language Development Test. In the end-of-the-year evaluation conducted collaboratively with the district's Reading First leadership team and the Los Angeles County Office of Education Reading First Implementation Division, all assessment measures were disaggregated by grade level, socioeconomic status, race-ethnicity, and language proficiency. The rubric below (see Table 6) summarizes the measures collected and the types of scores used to evaluate the program each year (Lancaster School District, 2004).

Table 6

Yearly Internal Evaluation Plan by Grade Level

Assessment Measure	K	1	2	3	Type of score to summarize student performance
Mid-year, End-of-year	X				Percent reaching benchmark level
Unit Assessments		X	X	X	Percent reaching benchmark level
ELA CST			X	X	Percent achieving Proficient or Advanced
CAT6 (Language Arts)			X	X	Percent scoring at or above 50th percentile
California English Language Development Test	X	X	X	X	Percent of Early Advanced or Advanced

Upon completion of analysis of the above data, the Reading First leadership team worked with site administrators, literacy coaches, and site teachers to make recommended modifications to improve program implementation and achievement results. The Reading First leadership team was also responsible for evaluating all proposed modifications to ensure that the district remained in compliance with Reading

First assurances, that any proposed program modifications maintained the integrity of Houghton Mifflin program, and that modifications could reasonably be implemented by teachers and literacy coaches with existing materials and professional development support (Lancaster School District, 2004).

An external statewide evaluation was also conducted each year beginning in 2004. The evaluation consisted of web-based end-of-year principal, coach, and teacher surveys to measure Reading First program implementation fidelity or the degree to which program elements are implemented at the school. The survey data are used to quantify this information by calculating a Reading First implementation index score for each school based on survey responses. This information could then be used to examine achievement gains relative to the degree of implementation, as well as identify components of the program that data suggests are being used most frequently, are being used with fidelity, are believed to have the greatest impact on program implementation, or are believed to have the greatest impact on achievement (Reading First, CTAC, 2003). Though these data were collected and analyzed for every Reading First school and could be used for making program adjustments, Lancaster School District has not evaluated the significance of the yearly survey results or longitudinal data in relation to implementation effectiveness or fidelity of the Reading First program throughout the district (Haager et al., 2009).

The RFAI was another external evaluation used to develop an index approach in determining whether schools are making significant progress in improving achievement. These data were used to inform decisions regarding funding renewal for Reading First LEAs based on adequate progress. Three types of achievement data were used to

calculate this index (CDE, 2009g):

1. STAR English Language Arts CST data for second and third grades. Each grade level is weighted as 30% of a school's RFAI, totaling 60% of the index.
2. Reading, language arts, and spelling CAT6 norm-referenced assessment data for third grade. The reading subtest is weighted at 6%, language arts at 2%, and spelling at 2%, totaling 10% of the RFAI calculation.
3. The Reading First end-of-year reading assessments for kindergarten through third grade is weighted as 30% of the RFAI with kindergarten and third grade weighted at 5% each, and first and second grade weighted at 10% each. (p. 1)

Title 5 Education, Division 1 CDE, Chapter 11 Special Programs, Subchapter 22.5 Reading First Achievement Index-Definition of Significant Progress, Section 11991.1 (CDE, 2009g) states:

> (a) In order to continue to receive Reading First Funding, a local educational agency (LEA) must achieve "significant progress" which is defined as having at least half of the LEA's Reading First schools, which have an RFAI, achieve an RFAI that is above one standard deviation below the mean on the RFAI for the LEA's cohort. (p. 2)

Lancaster School District has met the requirements each year between 2004 and 2009 to receive Reading First funding but has not used the data from the RFAI process to evaluate internally the effectiveness of the program or measure student achievement growth over time.

Sustainability of literacy reform efforts. Sustaining change for continuous improvement involves a repetitive cycle of inquiry that includes reflective self-

monitoring, evaluation, and modifications that reframe existing realities (Bolman & Deal, 2002, 2003; DuFour & Eaker, 1998; Fullan, 2005). It is critical that the work of reframing the organization is purposeful, responsive to the changing needs of the organization, and results oriented. Bolman and Deal (2002, 2003) suggest that reframing organizations should be examined with the aid of a four-frame model: structural, human resource, political, and symbolic. The four-frame model has been adapted for use in this research and is presented (see Table 7) to guide development of an organizational culture capable of sustaining efforts focused on continuous improvement for all students.

Table 7

Four-Frame Model for Reframing Organizations: Developing a Culture of Continuous Improvement to Increase Student Achievement and Close the Gap

Frame	Sustaining Systemic Change (Reframing)	Research
Structural Dimension	• Instructional goals must be clearly articulated and aligned at all levels of the organization • A shared vision is clearly communicated	Fullan 2003; Fullan, 2007; Marzano, 2003; Reeves, 2000
	• Established collaboration time for PLCs	DuFour & Eaker. 1998; Reeves, 2000
	• Assessments must be standards-based and purposeful to inform instruction and decision making	Wahlstrom, 2002
	• Instruction must be rigorous and relevant • Instructional strategies must be differentiated to meet the unique needs of all learners • Coherent and comprehensive implementation of district adopted programs and initiatives focusing on good first instruction, English Language Development and response to intervention	Buffum, Mattos, & Weber, 2009; DuFour et al., 2004; Fisher & Frey, 2008; Garner, 2007; Johnson, 2002; Newmann et al., 2001; Tatum, 2009

(*table continues*)

Frame	Sustaining Systemic Change (Reframing)	Research
Human Resource Dimension	• Consistent coaching for administrators and teachers to improve efficacy	Dozier, 2006; Fullan, 2007; Moran, 2007
	• Comprehensive professional development for district and site administrators	DuFour & Eaker, 1998; DuFour, DuFour, & Eaker, 2008
	• PLCs are data driven, student centered, and results oriented	Bernhardt, 2004; Blink, 2007; DuFour et al., 2008; Johnson, 2002; Popham, 2008
	• Trusting relationships are established and courageous conversations challenge beliefs, practices, and priorities concerning the right and ability of all children to learn	Johnson, 2002; Singleton & Linton, 2006; Thernstrom & Thernstrom, 2003
Political Dimension	• The organization works strategically as a coalition with a shared focus on improving the educational program and student learning	Buffum et al., 2009; Fullan, 2003
	• Leaders emerge from all points within the coalition and distributed leadership increases the organizational capacity to get things done effectively and efficiently	Fullan, 2003, 2005; Zander & Zander, 2000
Symbolic Dimension	• The organization engages in conversations about race-ethnicity to develop a culturally proficient environment	Lindsey et al., 2003; Singleton & Linton, 2006; Thernstrom & Thernstrom, 2003
	• The organization shapes the culture by establishing ceremonies and rituals that celebrate efforts by members both internally and externally	Bolman & Deal, 2003; Lindsey et al., 2003
	• These celebrations are communicated throughout the system (via newspaper, newsletter, phone, public assemblies, etc.) to maximize exposure and to inspire greater numbers of people	Bolman & Deal, 2003; Lindsey et al., 2003

Note: Adapted from “the four frame model for reframing organizations”, by Bolman and Deal, 2003, *Reframing Organizations: Artistry, Choice, and Leadership.* Copyright 2003 by Jossey-Bass.

Change will often increase levels of discomfort and stir negative emotions in people. However, systemic change, if not purposeful, can place leaders, as the change agents, in untenable situations, making progress slow and painful. An appreciative inquiry approach allows educators to celebrate and build on what is working well and identify strategies to improve further the system (Henry, 2003), with the idea of moving from good to great (Collins, 2001). Speaking about appreciative inquiry and its implications on education, Henry (2003), in an article titled "Leadership at Every Level: Appreciative Inquiry in Education," wrote, "By recognizing and amplifying successes and strengths that already exist, we create a new image of the future that is so compelling that we consciously and unconsciously move toward it; we make decisions and take actions that create it" (p. 1).

Sustainability of systemic change relies on whole-system capacity building on an ongoing basis (Marzano et al., 2005). Lancaster School District will need to develop a model for sustainability that clearly outlines expectations, identifies goals, and embraces the tenets of literacy reform.

One such model for sustainability well aligned to the work that the district has already started as part of implementation of the Reading First program, comes from Fullan's (2005) *Leadership and Sustainability.* Fullan describes eight elements of sustainability that strongly support the development of data-driven PLCs, the effective use of data, use of the inquiry process for continuous improvement, and building leadership capacity at all levels. Though several researchers emphasize the importance of sustainability in the systemic change process (Blankstein, 2004; DuFour et al., 2008;

Marzano et al., 2005), Fullan's (2005) eight elements delineate important considerations for Lancaster School District in development of its sustainability plan. They include:

1. *Public service with a moral purpose.* The school district is fully committed to providing all students the highest quality educational program and to closing the achievement gap. The vision espouses the beliefs, values, and expectations that compel the collective efforts of stakeholders and guide the work of continuous improvement in student learning.
2. *Commitment to changing context at all levels.* Fullan (2005) defines context as "the structures and cultures within which one works" (p. 16). All individuals, district, site, and community members must be willing to work collaboratively (PLCs) assessing organizational needs and engaging in purposeful discussions that are student centered and designed to build internal and external capacity.
3. *Lateral capacity building through networks.* Use PLCs at both the administrative level and with teachers to facilitate collaborative data-driven discussions about student learning and effective instructional strategies. The PLCs will encourage deprivitization of practice and networking within schools, between schools, and between districts.
4. *Intelligent accountability and vertical relationships.* Develop accountability structures to ensure alignment of curriculum, instruction, formative assessments, and grade-level standards. Vertical relationships between schools and district, administrators and teachers, and teachers and students must also be strengthened to improve effectiveness of collaborative efforts, promote

better practices for the use of data, and achieve expected learning outcomes for all students.

5. *Deep learning.* Establishing trusting relationships and professional environments that foster best practices and encourage deep learning; the ability to learn from our mistakes and experiences and, more important, from the experiences of others in the system. This level of transparency is essential for PLCs.
6. *Dual commitment to short-term and long-term results*. Understanding that systemic change and transformational reform are long-term goals that usually require 3 to 5 years, it is important to establish short-term benchmarks to measure progress and monitor effectiveness. Fullan (2005) refers to these as "aspirational targets" (p. 25); goals that the entire system can aspire to, that serve to instill confidence, build trust, and strengthen the momentum of reform efforts.
7. *Cyclical energizing.* Sustainability is not linear; there is no beginning and no end. It is a process in which positive collaborative cultures continually work together to achieve greatness. Progress must be constantly monitored and the system must be responsive and willing to adapt to meet the changing needs of students, staff, and the community. This type of cyclical energizing can only be achieved through building district coherence and leadership capacity.
8. *The long lever of leadership.* Fullan (2005) stresses the importance of critical masses of leadership at all levels of the system; Zander and Zander (2000) discuss leading from any chair; and Marzano et al., (2005) and DuFour et al.,

> (2005) acknowledge that school-wide reform requires the efforts of more than just the site administrator. Through development of strong PLCs, schools build leadership capacity, vertically and horizontally, throughout the system.

Perkins (2003) suggests that for systems to sustain forward momentum in their reform efforts, they must dramatically increase the number of "progressive interactions" (p. 246) and reduce the number of "regressive interactions" (p. 246). Progressive interactions involve an exchange of knowledge and positive social interactions such as those that one hopes would occur during a productive PLC meeting. Regressive interactions are laden with negativity, excuses, dissatisfaction, and doubt. In regressive interactions, little progress is made and, oftentimes, people opt out of participating, either physically or mentally, if given an opportunity. Perkins noted that when observed on a daily basis, there are more regressive interactions than there are progressive interactions. He suggests that the overriding reason for this phenomenon is simply that it is easier—easier to opt out than to work to correct the situation. It is easier to find fault in others than to reflect on one's own behaviors or to work collaboratively to find answers. Furthermore, he contends that when faced with stressful situations, such as those that accompany systemic change, individuals usually revert back to regressive behaviors.

These tendencies can make sustaining literacy reform in Lancaster School District challenging, but certainly not impossible. It is incumbent upon the LEA to develop masterful leaders at all levels of the system to sustain the complex work of continuous improvement (Blankstein, 2004; Fullan, 2005). Effective leaders must be capable of being simultaneously the quarterback on the offensive line and the coach on the sideline with the bigger perspective, actively in the game, and calling the plays while maintaining

an understanding of the bigger picture. Effective leaders must be change agents that inspire, motivate, and solve problems (Fullan, 2003, 2005). They must be committed to the change effort and continually work to build capacity within themselves and others to result in transformational change (Marzano et al., 2005).

Chapter Summary

Literacy performance has been, and will continue to be, of the utmost importance in American society (R. M. Hauser et al., 2005). Recently, a great deal of attention has been directed toward equipping students with 21st century learning skills so that they may be able to compete successfully in a global economy (Freidman, 2005; Fullan, 2007). In spite of the tremendous progress and advancements in information technology and communication access, the ability to read and write remain critical foundational skills used to measure an individual's potential to be successful in school, in society, and in the workforce (Alliance for Excellent Education, 2004; McKinsey & Company, 2009).

Disparities in access to high-quality curriculum and educational resources, teacher quality, and academic success among white students and their African American and Hispanic counterparts challenge educators. Although the proportion of whites in the population is about 72%, it is expected to decline to 53% by 2050 (U.S. Census Bureau, 2007). The implications of a growing minority population, coupled with an educational program that is ineffective in addressing the achievement gap, may increase illiteracy, dropout rates, and unemployment rates among African American and Hispanics, unless educators are effective at educating all children at high levels (Chubb & Moe, 1990; Edmonds, 1979; Friedman, 2005; Noguera, 1997; Thernstrom & Thernstrom, 2003).

The research in this literature review surfaced effective strategies for addressing the academic achievement gap of high-minority, high-poverty, and high-performing schools. The research that supports the key components for the Reading First program that specifically target improvement in literacy achievement have also been delineated. In comparing the essential points of these two sets of information, it is interesting to note that they share several research-based strategies and practices (see Table 8).

Table 8

Commonalities Between Strategies to Close the Achievement Gap and Literacy Reform

Closing the Achievement Gap		Key Components of Reading First Program
Access ⇨	Scientifically research-based adopted curriculum and supplemental materials; adherence to a pacing guide and designated instructional minutes for core; rich academic program; highly qualified teachers	⇦ Curriculum
Culture/Climate ⇨	Engage in transparent, student-centered, conversations based on data-evidence of learning; develop a shared mission, vision, and goals; build trusting relationships; regularly monitor progress; celebrate success	⇦ Collaboration
Expectations ⇨	Emphasis on achievement and continuous improvement; establish and maintain high expectations for learning for all members of the school community—teachers and students; provide ongoing support for practices and structures that promote increased learning	⇦ Coaching
Strategies ⇨	Focus on implementation of the instructional program with expertise and integrity; use of differentiated strategies to meet the unique-individual learning needs and styles of all students; supporting successful PLCs to encourage collaboration and the exchange of promising practices and promote sustainability	⇦ Professional Development

The Reading First program was introduced as a comprehensive plan for literacy reform to improve student learning in reading-language arts. There is a sense of urgency locally, nationally, and globally, for all students to achieve at high levels. It is, consequently, vital to identify practices and structures that are effective for all learners and that successfully promote closing the achievement gap while improving literacy outcomes for children. The American Federation of Teachers (1998) wrote:

> In today's society, the child who doesn't learn to read does not make it in life. If children don't learn to read early enough, if they don't learn to read with comprehension, if they don't read fluently enough to read broadly and reflectively across all content areas, if they don't learn to read effortlessly enough to render reading pleasurable, their chances for a fulfilling life—by whatever measure: academic success, financial stability, the ability to find satisfying work, personal autonomy, self-esteem—are practically nil. (p. 3)

Chapter Three. Methods

Overview

This chapter will first restate the purpose of this research and the research questions that were used to guide the scope of work. This will be followed by the research design and methodology, an examination of the subjects-data sources used for the study, and a discussion about confidentiality assurances and considerations to protect anonymity of data sources. A thorough description of the instrumentation used to conduct the study, including validity and reliability of the instruments, is provided. The chapter will conclude with an explanation of the data analysis process, itemization of the procedures for conducting the study, and the chapter summary.

Purpose of the Study

The purpose of this study was to compare and describe elementary student literacy performance in Lancaster School District in Grades 2 through 5 for six elementary schools implementing the Reading First program and six elementary schools not implementing Reading First. Additionally, specific subgroup data for English language learners and African American students were closely examined and compared with the performance data of white students to determine whether the Reading First program had narrowed the achievement gap among African American students, Hispanic students, English language learners, and their white counterparts. This study also explored the relationship, if any, between the level of Reading First program implementation and literacy achievement of students, as measured by the CST. Finally, this study examined the relationship, if any, between the level of program implementation

and increased student achievement at Reading First schools for students in kindergarten through Grade 3 that participated in the Reading First program.

Research Questions

The research questions used to guide this study were:

1. How does second through fifth grade literacy performance on the CST at six Lancaster School District elementary schools that have received Reading First grant resources and implemented the Reading First program compare with the literacy performance at the other six elementary schools in the district that did not receive the same resources between 2005 and 2009?
2. How does second through fifth grade literacy performance of English language learners, Hispanic, African American, and white students on the CST at six Lancaster School District elementary schools that have received Reading First grant resources and implemented the Reading First program compare with the literacy performance of the same subgroups, respectively, at the other six elementary schools in the district that did not receive the same resources between 2005 and 2009?
3. What relationship exists, if any, between the level of implementation of the Reading First program (as measured by the RFII) and literacy achievement of students in second through fifth grade (as measured by the CST) between 2005 and 2009?
4. What relationship exists, if any, between the level of implementation of the Reading First program (as measured by the RFII) and literacy achievement of students in kindergarten through Grade 3 (as measured by the RFAI)?

Research Design and Methodology

The study was quantitative and descriptive and used comparative and correlational methodologies. It was conducted in two phases to address adequately the research questions. A quantitative approach was proposed because the study was nonexperimental and examined the relationship between two or more phenomena.

The first phase was comparative and descriptive in nature. Quantitative data was used to examine STAR CST student achievement data between 2005 and 2009 in English-language arts. Longitudinal CST student achievement data were studied for the six non-Reading First schools and the six Reading First schools in the Lancaster School District. The descriptive phase of the study allowed the researcher to utilize factual statistical information to discover observable trends about the populations being studied. This systematic research approach was integral, as the study also examined implementation of the Reading First program and its possible effects on literacy achievement of underperforming subgroups, with an emphasis on evidence of closing the achievement gap among white students and their African American and Hispanic counterparts. The strength in using this design method was the high number of data sources in the sample population that was studied, increasing the ability to generalize the findings to similar populations (Gay, 1996).

The second phase of the proposed study was correlational. Correlational study methodologies were used to examine the extent to which a relationship exists between implementation of the Reading First program and student achievement in Grades 2 through 5 as measured by 2005–2009 CST scale scores at Reading First schools in the Lancaster School District.

Additionally, the literature review identified a correlation between the level of program implementation and student achievement in Reading First schools in California as reported by Haager et al., (2009) in its California Reading First Year 7 Evaluation Report. The researcher closely examined the RFII and RFAI statistical data between 2004 and 2009 of Reading First schools in Lancaster School District to learn if a similar correlation exists between the level of implementation and student achievement within the district. The correlational study focused on determining if any predictable increases or decreases could be identified between independent and dependent variables (Leedy & Ormrod, 2005). The weakness in the correlational study design is that although the study results may indicate that a correlation exists between variables, it does not, in and of itself, indicate that a cause and effect relationship exists.

The proposed methodologies used to conduct the study incorporated two quantitative approaches, descriptive and correlational, and were intended to corroborate the findings and offset the weaknesses of one method with the strengths of another. The data collection occurred concurrently to strengthen reliability of the study. The researcher integrated the results of the two methods during the data analysis and interpretation phase in an effort to validate further and substantiate the findings of each method.

Subjects

STAR CST English-language arts achievement data for students in Grades 2 through 5 obtained from the CDE Web site for all 12 kindergarten through Grade 5 elementary schools in the Lancaster School District was used to identify data trends between 2005 and 2009. In addition to examining scale score data for all students by grade level, the study involved stratification of the population by significant subgroups;

stratums included white students, African American students, Hispanic students, and English language learners. Stratification allowed the researcher to disaggregate the data to examine more closely any relationships and describe trends that exist in or between certain populations of individuals (Fowler, 1988).

The California Reading First Yearly Evaluation Reports conducted by EDS and available online was used to collect the RFAI and RFII data for the six Reading First elementary schools in Lancaster School District between 2005 and 2009. These data sources provided information necessary to identify trends in depth of implementation and student achievement growth (as measured by two different data sources, CST and RFAI) over time. The data were also used to facilitate a correlational comparison of implementation levels and student achievement growth (as measured by CST and RFAI) to determine if a statistically significant relationship exists.

Human Subjects Considerations

The quantitative data for phases one and two were collected from statistical student achievement information available to the public through the CDE and EDS Web sites. Individual scale score data were collected from the Lancaster School District data management system, OARS, and charted by grade level, subgroup, and school. No data were recorded that provided any identifiers or information that may link an individual's identity to his or her score. All data provided were used in an aggregate format, and individual participant information was not reported and was not used as part of this study. Only the researcher has access to the data collected and used for this study. Human subject consent procedures were therefore not required for this study.

This research study adhered to the guidelines of Pepperdine University's Institutional Review Board in cooperation with the Lancaster School District. Written permission to conduct the study was obtained from the district superintendent (see Appendix J).

All data collected during this study remains confidential and was only used in an aggregate form to address the goals of this research. The identification of the individuals whose scale scores were examined as part of the study were not recorded, published, or made public in any way. All data collected remain in a secure place and will be destroyed in 3 years, following the conclusion of the study and publication of the results.

In accordance with Pepperdine University's compliance requirements to ensure the protection of the rights of human subjects, the researcher completed the web-based course "Protecting Human Research Participants" offered by the National Institutes of Health. The confidentiality and anonymity of research activities of this study considerably minimized the risk to human subjects. There were no drugs, medical devices, or procedures involved in this study, and no personal information or identification were required as part of the study.

It is anticipated that this study may be used to inform decisions regarding the development and design of an effective literacy program for all students and an intervention program for at-risk African American students and English language learners in the Lancaster School District. Identifying specific instructional strategies and resources that improve teacher efficacy and increase student learning for African American students and English language learners will be integral in addressing the disparities in student achievement between subgroups. This study may also prove beneficial, as schools

and districts throughout California with similar demographics continue to wrestle with how to meet demanding federal accountability standards to improve student learning and close the achievement gap.

Instrumentation

Because of the nature of the study, the researcher utilized two quantitative data sources. The data sources for the multiple methods study were: (a) CST AYP student achievement data and ELA scale scores for students in Grades 2 through 5 used to compare and describe student achievement trends between Reading First schools and non-Reading First schools, and (b) RFII data, RFAI data, and CST scale scores in ELA used to conduct a correlational study between implementation and student achievement.

The CDE Web site was the source for collecting AYP student achievement data for the period of 2005 through 2009. ELA CST scale scores for that period were obtained using the Lancaster School District OARS data management system and the STAR reports available on the CDE Web site. All reports and data are based on students' performance on the criterion-referenced STAR program's CST conducted by the state of California each spring in Grades 2 through 11. The CST is designed to measure a student's proficiency or mastery level of the state's academic content standards for a particular grade level (Education Data Partnership, 2009). The study focused on English-language arts content area and examined achievement data for all students, African American students, Hispanic students, English language learners, and white students.

As required by California Education Code Section 60605.5, the state board of education has adopted specific criteria to measure and report a student's performance level on the CST. Based on their ELA scale scores, students' academic performance

levels may be advanced, proficient, basic, below basic, or far below basic on the CST (Human Resources Research Organization, 2007a). The state board of education has identified a scale score of 350 as the cut score that designates a student as proficient in ELA, indicating he or she has acquired the desired grade-level content skills (Education Data Partnership, 2009). A comprehensive report that outlines empirically based descriptors for each performance level, by content area and grade level, was prepared for CDE by the Human Resources Research Organization (2007a).

AYP data is publicly accessible through the Dataquest link on the CDE Web site and may be disaggregated by district, school, grade level, and numerically significant subgroups. A subgroup is considered numerically significant if it has either: (a) at least 50 students with valid scores, or 15% of the total valid scores; or (b) at least 100 students with valid scores (CDE, 2009b). Significant subgroups may be categorized by English language designation, race-ethnicity, socioeconomic status, students with disabilities, or gender.

The literature review showed that California has been recognized for its rigorous content standards and has provided the foundation for standards-based reform in the state (Human Resources Research Organization, 2007b). An independent evaluation of the alignment of California's standards and assessment system was conducted by Human Resources Research Organization (2007b). Human Resources Research Organization (2007b) used the Webb alignment method to measure alignment of the 2006 CSTs to the California standards and included four criteria: categorical concurrence, depth-of-knowledge consistency, range-of-knowledge correspondence, and balance-of-knowledge representation. The report provided confirmation of the content validity of the CSTs and

the “results offer reasonable evidence to the USDE that California clearly has established a rigorous and coherent assessment system for all students” (p. v).

The second phase of the proposed research involved a correlational study, the examination of the relationship between the RFII and CST scale scores, and the RFII and RFAI ratings of schools implementing the Reading First program in the Lancaster School District. California’s Reading First plan proposed a yearly measure of implementation for all participating Reading First schools in order to quantify the degree of implementation. Researchers have stressed the importance of implementation of programs as planned, often referred to as implementation with fidelity or integrity (Gresham, Gansle, & Noelle, 1993). Failure to monitor implementation may pose threats to the external and internal validity of the program (Moncher & Prinz, 1991), resulting in difficulty distinguishing an ineffective program from an effective program that lacks integrity and has been poorly implemented (Gresham, 1989; Yeaton & Sechrest, 1981).

The RFII was developed to “gather information about the presence, absence, and degree of utilization of the critical elements that define the implementation of the Reading First program” (Haager et al., 2009, p. 52), including appropriate utilization of adopted core materials, attitudes toward the program, level of administrative support and knowledge of Reading First Assurances, and effectiveness of the coach in supporting teacher professional development. The index is derived from data collected in a comprehensive end-of-year survey specifically tailored for kindergarten through Grade 3, and administered annually each spring to principals, teachers, and coaches. Respondents received a different version of the end-of-year survey based on their position, grade-level assignment, and adopted curriculum (Open Court or Houghton Mifflin).

The RFII utilizes the Many-Facet Rasch Model (Facets) to equate and analyze end-of-year survey data, making it possible to conduct comparisons between schools. External evaluators, with the approval of the Reading First Evaluation Advisory Group, examined the 17 dimensions found in the end-of-year survey and, using the facets, determined that they could best be summarized by three primary implementation measures, which they labeled school implementation overall, overall Reading First understanding, and teacher coach professional development. The facets analysis resulted in the school's RFII, the weighted average of the school implementation overall (70%), the overall Reading First understanding (20%), and the teacher coach professional development (10%). The RFII is a linear scale score that is converted to a percentage (1%–100%) for Reading First reporting purposes. This RFII (theoretical) percentage is interpreted as the percentage of time that principals, teachers, or coaches rate their school "more than adequate" on an item of average difficulty. The RFII data is reported as part of the California Reading First Yearly Evaluation Reports.

The RFAI is another measure used by Educational Data Systems, the external evaluator, for determining academic progress for LEAs participating in California's Reading First program. The RFAI calculation is determined each fall and is based on three types of student achievement data: (a) the STAR: CST data for Grades 2 and 3; (b) STAR California Assessment Test 6 norm-referenced subtests in reading, language arts, and spelling; and (c) Reading First end-of-year assessment data (5% for kindergarten skills assessment, 10% for Grade 1 oral fluency assessment, 10% for Grade 2 oral fluency assessment, and 5% for Grade 3 oral fluency assessment). In 2004, the Reading First Evaluation Advisory Group recommended that each of these scores be weighted and gave

CST data 60%, the California Assessment Test 6 scores 10%, and the end-of-year assessment data 30%. Since the California Assessment Test 6 assessment is no longer administered in California, in 2008–2009, computation of the RFAI changed to increase the CST weight from 60% to 70%. The end-of-year assessment weight was left at 30%. In 2007–2008, a regression equation was calculated to adjust the RFAI scores previously reported in an effort to maximize comparability to past years' RFAI statistics. The California Reading First yearly evaluation reports provide a scale score and index score for each school.

Validity and Reliability

The validity of the research design of this study was established through the research contained in the literature review. The study employed multiple methodologies: (a) comparative and descriptive research, and (b) correlational research. The quantitative data sources were purposefully selected by the researcher based on verification of their reliability.

The STAR CST exam is a criterion-referenced exam developed by Educational Testing Services and aligned to the California standards to assess student proficiency on grade level–appropriate, standards-based objectives. A comprehensive statistical analyses of the test content and the construct of what the CST is designed to measure is regularly evaluated to determine if a relationship exists between the two variables. The CDE (2010d) states, "Evidence that the items meet these specifications and represent the domain of knowledge and skills referenced by the standards supports the inference that students' scores on these items can appropriately be regarded as measures of the intended

construct" (p. 400). The CDE's reliability analyses of CSTs reported high overall reliabilities for all content areas and grade levels, ranging from .91 to .95.

To evaluate fully the effectiveness of the Reading First program, it is critical that achievement be examined in relation to the depth of implementation of the program (Dane & Schneider, 1998; Haager et al., 2009). EDS developed the end-of-year surveys for use in determining the RFII for all Reading First schools. Throughout the 6 years of the administration of the end-of-year assessments, 2004–2009, EDS has worked with experts in the CTAC and the Reading First Evaluation Advisory Group to validate the content and construct of the end-of-year survey. To ameliorate potential limitations as a result of administering different versions of the test to different types of respondents (principals, teachers, and coaches), an item response theory equating method is used to equate responses and allow comparability across program years. The 2009 Reading First Program Evaluation reported that, based on previous evaluation reports, the reliability (Cronbach-alpha) of the RFII has ranged from .90 to .92 (Haager et al., 2009). Haager et al. wrote:

> Given the high content validity of the Reading First survey and its level of detail, the use of methodological tools that correct for common sources of bias, and the statistical and psychometric characteristics of the RFII, we consider the RFII to be sufficiently valid and reliable to be used for measuring implementation at the school level. (p. 55)

At the recommendation of the evaluation advisory group, the RFAI calculation was developed in 2004 and has been used for 6 years to monitor academic achievement and determine whether Reading First schools are making significant progress. This

information was primarily used for state funding purposes. The RFAI is a weighted calculation computed on 70% STAR CST data for Grades 2 and 3, and 30% on the end-of-year reading assessments for kindergarten through Grade 3. The validity and reliability of the STAR CST and of the end-of-year assessments have been well established in this study and it is, therefore, reasonable to surmise that the RFAI is both a valid and reliable index. The corroboration of the data collected as part of the methodologies of the two phases of this study strengthened the external validity and increased the generalizability of the findings.

Data Analysis Process

To conduct the comparative and descriptive research for this study, CST student achievement data for ELA for 2005 through 2009 were collected from the CDE data quest Web site for each of the 12 elementary schools in the Lancaster School District for Grades 2 through 5. Individual CST ELA scale score data were also obtained from Lancaster School District using the OARS data management system and recorded by grade level, subgroup, and school (individual names were not be recorded). The grade-level data collected were disaggregated based on the following categories: all students, African American, English learner, Hispanic, and white. The CST data for the six Reading First schools were grouped together (Group A), and the six non-Reading First schools were grouped together (Group B). All data collected were charted by year (2005–2009) as follows: (a) scale scores for all students by grade level, subgroup, and school; (b) percentage of students proficient or advanced for all students, African American, Hispanic, and English language learners by school and grade level; and (c) difference in percentage of students proficient or advanced between 2005 and 2009 for each of the

significant subgroups in this study by school and grade level. A bar graph was developed to represent visually student achievement growth (all students) between 2005 and 2009 for each school by grade level. CST data for both Groups A and B by grade level and subgroup category were analyzed and any trends observed were described by the researcher. Using the scale score information, an analysis of variance (ANOVA) was calculated for each group to determine if the observed trends were statistically significant using the NCSS software program. A confidence level of $p < .05$ was used for this study to determine statistical significance.

RFII and RFAI data collected from the yearly California Reading First Evaluation Reports were charted by year for the six Reading First schools for 2005 through 2009. To determine if a relationship exists between the RFII and the RFAI, a regression analysis and correlation coefficient calculation were completed for each set of variables between 2005 and 2009. A regression analysis examined the relationship between the dependent variables (RFAI and CST scale scores) when the independent variable (RFII) changes. The correlation coefficients range from -1.00 to +1.00, with -1.00 representing a negative correlation and +1.00 representing a positive correlation. A value of 0 indicates that no correlation exists. All variables were illustrated in a scatter plot to determine if a linear regression exists, suggesting a high correlation between variables. The data were analyzed to determine if any outliers exist that may influence or skew the calculation, artificially increasing or decreasing the correlation coefficient. However, it is important to note that a correlational relationship does not automatically infer a causal relationship. Should a strong correlational relationship exist, the findings from the regression analysis were used, in conjunction with the findings from phase one of this study, to make

predictions about student achievement expectations for schools that implement the components of the Reading First program.

Procedures

The following procedures were used to conduct the study:

1. The researcher met with the superintendent of the Lancaster School District to review the purpose of the study, research questions, importance of the study, and methodology. Pepperdine University's human subjects rights and protection guidelines were also discussed with the superintendent to reiterate steps that the researcher would take to ensure confidentiality and anonymity of assessment data. The permission letter was presented for the superintendent's signature of approval to conduct the study (see Appendix J).
2. The twelve elementary schools in the Lancaster School District were sorted into two groups. Group A included the six Reading First schools and Group B included the six non-Reading First schools. Each of the schools was coded for confidentiality purposes.
3. Using the CDE data quest Web site, 2005 through 2009 STAR: ELA CST student achievement data was recorded for each school on an Excel spreadsheet. The AYP data showing the percentage of students proficient and advanced were recorded for each grade level two through five and disaggregated by the following categories: all students, African American, English language learners, Hispanic, and white.

4. Bar graphs were created for Groups A and B by grade level and subgroup category to show the percentage of students proficient and advanced between 2005 and 2009.
5. The yearly difference-growth in the percentage of students proficient and advanced between 2005 and 2009 for all schools was charted by grade level. Bar graphs were developed for each grade level to illustrate, compare, and describe student achievement growth within, and between, Groups A and B, respectively, between 2005 and 2009.
6. An ANOVA calculation was completed for each grade level using the percentage of all students proficient and advanced between 2005 and 2009 for all schools to determine if the data reflect a statistically significant difference between Reading First schools and non-Reading First schools. A confidence level of $p < .05$ was used to determine statistical significance.
7. Using the Lancaster School District's OARS data management system and STAR reports on the CDE Web site, 2005 through 2009 STAR: ELA CST mean scale scores for students in Grades 2 through 5 at each of the schools in Groups A and B were disaggregated and recorded by grade level and significant subgroup.
8. The mean scale score information was used to calculate an ANOVA for Groups A and B by grade level and significant subgroup to determine if the data are statistically significant. A confidence level of $p < .05$ was used to determine statistical significance.

9. The researcher analyzed and described all data trends (positive or negative) observed in steps 1 through 6 for Groups A and B. These data trends are reported in Chapter Four of this study.
10. RFII and RFAI data for all schools in Group A were collected from the California Reading First Yearly Evaluations Reports for 2005 through 2009 available online. This information was recorded on an Excel spreadsheet.
11. A scatter plot was used to illustrate the data to determine if a linear regression exists, suggesting a high correlation between variables. The data were examined to identify outliers that may have influenced or skewed the calculations.
12. To determine if a relationship exists between the level of Reading First implementation and student achievement, NCSS software was used to complete a regression analysis and to calculate the correlation coefficient of the (a) RFII and CST ELA scale scores, and (b) RFII and RFAI data sets. The findings of the regression analysis and the correlation coefficient were used to determine if a statistically significant relationship exists between the level of implementation and CST achievement or between level of implementation and the RFAI. A correlation coefficient of +1.00 indicates a positive correlation, -1.00 indicates a negative correlation, and 0 indicates that no correlation exists.
13. The researcher examined data trends and findings from phase one of the study, the comparative and descriptive research utilizing CST data, and from the findings from phase two, the correlational phase, utilizing the regression

analysis findings to identify any observed consistencies or inconsistencies between the two research methodologies.

14. The report of findings and subsequent conclusions and recommendations were informed by the literature review on effective strategies on closing the achievement gap, as well as a comprehensive examination of the essential components of the Reading First program, and were based on a thorough analysis of information obtained from all of the above mentioned procedures.

Summary

This chapter discusses research methodologies used to examine the implications of implementation of the Reading First program on English-language arts student achievement. First, student achievement growth trends were studied for all students by grade level for Grades 2 through 5 and by significant subgroups in the Lancaster School District (African American, English language learners, Hispanic, and white). The methodology also outlines how the researcher examined the correlational relationship between depth of implementation and achievement levels at Reading First schools.

The researcher acknowledges that certain limitations of the proposed study exist. Although the student CST data accurately report scores for all students enrolled in the school that took the STAR assessment, they do not report the percentage of students continuously enrolled in Reading First schools since kindergarten who may have benefitted from implementation of the Reading First program. Furthermore, the researcher could not measure the impact of implementation of any intervention or English language development programs that may have been in place at a school site. Another important consideration is the study did not make any allowances for staff mobility

within the district, voluntarily or involuntarily, during the 6-year period that the Reading First program was implemented. Thus, levels of staff expertise and training in the program and effective instructional strategies vary throughout the district.

Although the researcher recognizes the limitations of the study, it is believed that implications for developing comprehensive literacy programs that effectively improve student learning are significant. Additionally, an examination of the Reading First program's critical components may prove invaluable in planning coherent professional development opportunities and improving teacher efficacy. As the Reading First program comes to an end, sustainability, accountability, and funding become increasing concerns for districts throughout California. The research will help identify instructional strategies and promising practices that positively impact learning for all students based on empirical evidence and may provide information and guidance to other LEAs as they make critical decisions about their reading programs.

Identifying strategies to close effectively the achievement gap is a priority for Lancaster School District and California. While the importance of providing a high quality education for all children is clearly understood and agreed upon by educators and politicians, recently, a great deal of attention has been given to the economic and societal implications when educational programs don't ensure that students have the 21st century skills they need to compete in a global world. Insomuch as 21st century standards point out the importance of students acquiring informational technology skills, it is important to note that literacy skills continue to be a fundamental indicator in predicting student success. It is the researcher's hope that this study will provide data to inform program decisions that contribute to a structured approach to closing the achievement gap.

Chapter Four. Presentation of Findings

Purpose of the Study

The study's purpose was to compare and describe elementary student literacy performance in Lancaster School District in Grades 2 through 5 for six elementary schools implementing the Reading First program and six elementary schools not implementing Reading First. Specific subgroup data for English language learners and African American students were closely examined and compared with the performance data of white students to determine whether the Reading First program had narrowed the achievement gap among African American students, Hispanic students, English language learners, and their white counterparts. This study also explored the relationship, if any, between the level of Reading First program implementation and literacy achievement of students, as measured by the CST. This study examined the relationship, if any, between the level of program implementation and increased student achievement at Reading First schools for students in kindergarten through Grade 3 who participated in the program.

Research Questions

The research questions that guided this study were:

1. How did second through fifth grade literacy performance on the CST at six Lancaster School District elementary schools that received Reading First grant resources and implemented the Reading First program, compare with the literacy performance at the other six elementary schools in the district that did not receive the same resources between 2005 and 2009?
2. How did second through fifth grade literacy performance of English language learners, Hispanic, African American, and white students on the CST at six

Lancaster School District elementary schools that had received Reading First grant resources and implemented the Reading First program compare with the literacy performance of the same subgroups, respectively, at the other six elementary schools in the district that did not receive the same resources between 2005 and 2009?

3. What relationship exists, if any, between the level of implementation of the Reading First program (as measured by the RFII) and literacy achievement of students in second through fifth grade (as measured by the CST) between 2005 and 2009?
4. What relationship exists, if any, between the level of implementation of the Reading First Program (as measured by the RFII) and literacy achievement of students in kindergarten through Grade 3 (as measured by the RFAI)?

Overview of Research Design

The study was guided by four research questions and conducted in two phases. Phase 1 (research questions 1 and 2) focused on a comparative and descriptive analysis of literacy achievement within, and between, all Reading First (Group A) and all non-Reading First schools (Group B) in the Lancaster School District. Phase 1 of the study utilized CDE and the district's student data management system (OARS) to collect disaggregated ELA CST student achievement data for students in Grades 2 through 5 between 2005 and 2009.

Question 1 compared the percentage of all students in Grades 2 through 5 scoring proficient or above on the ELA CST for each Reading First and non-Reading First school in the district between 2005 and 2009. The comparison examined observable

relationships, patterns, and trends in student achievement within and between Reading First and non-Reading First schools. An ANOVA calculation was completed for each grade level and a confidence level of $p < .05$ was used to determine statistical significance. The ANOVA assumes that the contributions to variances come from normally distributed populations and examines the variability within and between groups to justify the inference that there is a statistically significant difference in the data presented (Isaac & Michael, 1997).

Question 2 utilized ELA CST mean scale score data for Grades 2 through 5 between 2005 and 2009 for each school. Reading First and non-Reading First schools mean scale score data were disaggregated and analyzed by both grade level and significant subgroups, including white, African American, Hispanic, and English language learner. The comparison examined observable relationships, patterns, and trends in student achievement within and between Reading First and non-Reading First schools. An ANOVA calculation was completed for each grade level and a confidence level of $p < .05$ was used to determine statistical significance. The ANOVA assumes that the contributions to variances come from normally distributed populations and examines the variability within and between groups to justify the inference that there is a statistically significant difference in the data presented (Isaac & Michael, 1997).

Phase 2 (research questions 3 and 4) of the study used a correlational research design approach to determine if a statistically significant relationship exists between the level of Reading First program implementation (RFII) and literacy achievement (as measured by CST and RFAI) between 2005 and 2009 at Reading First schools in the Lancaster School District. Question 3 examined the relationship between the RFII and

CST mean scale score data for Grades 2 through 5 between 2005 and 2009. Question 4 examined the relationship between RFII and RFAI student achievement data for kindergarten through Grade 3 between 2005 and 2009. This phase of the study was limited to Reading First schools because the availability of RFII and RFAI data was limited to Reading First schools. A regression analysis was used to analyze the relationship between the dependent variable, student achievement (as measured by CST, by grade level, or RFAI), and the independent variable, the RFII. For the subgroup all students, variables have been illustrated in a scatter plot to determine if a linear regression exists, suggesting a high correlation between variables. A table was developed to display information for all grade-level subgroups as part of the study. The correlation coefficient for all subgroups has been calculated and measures the degree of the relationship between the variables. The coefficient value represents a positive or negative correlation, ranging from +1.00 to -1.00; a value of 0 indicates that no correlation exists.

The presentation of the findings is organized by research question. The research questions were restated and followed immediately by the report of findings for each question. The chapter concludes with the summary of findings for the study.

Findings

Research question 1. Question 1 asks: How did second through fifth grade literacy performance on the CST at six Lancaster School District elementary schools that received Reading First grant resources and implemented the Reading First program, compare with the literacy performance at the other six elementary schools in the district that did not receive the same resources between 2005 and 2009? The CDE STAR Web site was used to collect data for each of the elementary schools in the study. The

percentage of students proficient and above was recorded for each school by grade level. The data were used to conduct a descriptive comparison within, and between, non-Reading First schools and Reading First schools. An ANOVA calculation was conducted for each grade level to determine statistical significance.

Grade 2. Figure 2 displays how ELA CST percent proficient data are distributed among the six elementary schools in each group. A comparison between non-Reading First schools and Reading First schools of the percentage of Grade 2 students scoring proficient and above on the ELA CST between 2005 and 2009 showed that in 2005 and 2006, the first 2 years of implementation, a greater percentage of students in non-Reading First schools were higher performing than students in Reading First schools, as reflected in the box plot comparison by the medians, upper whiskers, and lower whiskers for both years. In 2007, Reading First schools showed a minimal increase in the percentage of students proficient and above in Grade 2, in comparison to non-Reading First schools that demonstrated negative change in the percentage of students proficient. By 2009, the gap between the median score in non-Reading First schools and Reading First schools had narrowed from 7.5 percentage points to 3.65 percentage points.

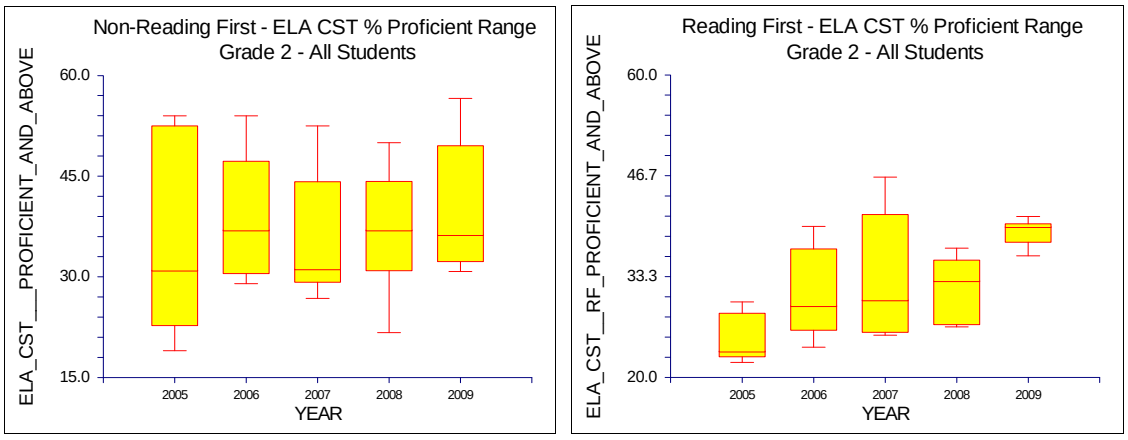
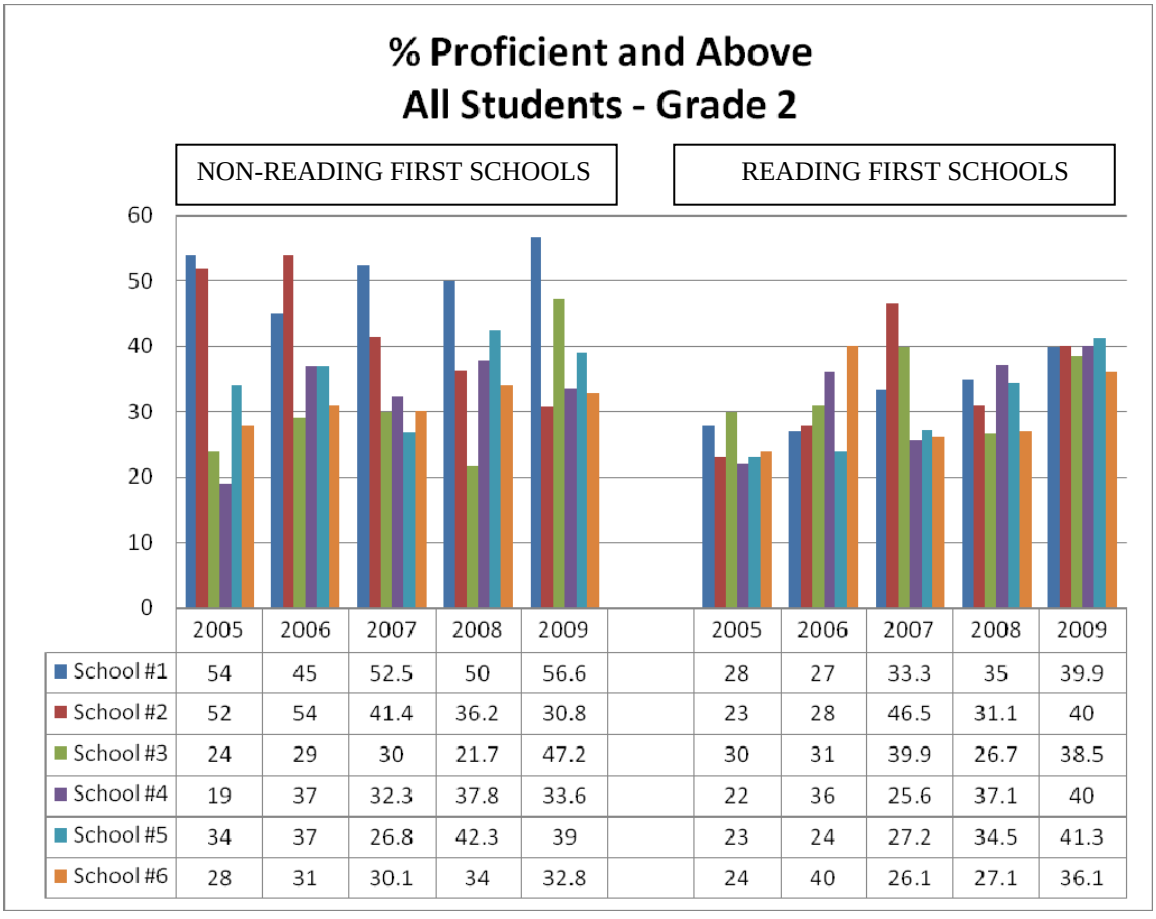


Figure 2. Box plots of the percentage of students proficient and above in Grade 2 on the ELA CST for all non-Reading First schools and all Reading First schools.

Figure 3 illustrates the percentage of students scoring proficient or above. This chart provides a visual comparison within, and between, non-Reading First schools and Reading First schools. A comparison of non-Reading First schools only reveals a sizable range in percent proficient each year between 2005 and 2009; range equals 35 percentage points, 25 percentage points, 25.7 percentage points, 28.3 percentage points, and 25.8 percentage points respectively. In comparison, Reading First schools have a narrow range in percent proficient each year between 2005 and 2009; range equals 8 percentage points, 16 percentage points, 19.9 percentage points, 10.4 percentage points, and 5.2 percentage points respectively.



	2005	2006	2007	2008	2009		2005	2006	2007	2008	2009
School #1	54	45	52.5	50	56.6		28	27	33.3	35	39.9
School #2	52	54	41.4	36.2	30.8		23	28	46.5	31.1	40
School #3	24	29	30	21.7	47.2		30	31	39.9	26.7	38.5
School #4	19	37	32.3	37.8	33.6		22	36	25.6	37.1	40
School #5	34	37	26.8	42.3	39		23	24	27.2	34.5	41.3
School #6	28	31	30.1	34	32.8		24	40	26.1	27.1	36.1

Figure 3. Percentage of all students scoring proficient and above in Grade 2 on the ELA CST for non-Reading First schools and Reading First schools.

Calculation of the mean and median percentage of all students scoring proficient and above between 2005 and 2009 is provided for non-Reading First schools and for Reading First schools. Table 9 shows that the mean score of all non-Reading First schools increased 5 percentage points, from 35.2 to 40 between 2005 and 2009. The mean score of Reading First schools increased 14.3 percentage points, from 25 to 39.3 between 2005 and 2009. The difference, or gap, in the mean score between non-Reading First and Reading First schools between 2005 and 2009 decreased from 10.2 percentage points in 2005 to .7 percentage points in 2009.

Table 9

Mean and Median Percentages of Grade 2 Students Proficient and Above Between 2005 and 2009 for All Non-Reading First Schools and All Reading First Schools

% Proficient and Above				
All Students—Grade 2				
	All Non-Reading First Schools		All Reading First Schools	
	Median	Mean	Median	Mean
2005	31	35.2	23.5	25
2006	37	38.8	29.5	31
2007	31.2	35.5	30.25	33.1
2008	37	37	32.8	31.9
2009	36.3	40	39.95	39.3

Grade 3. Below, Figure 4 displays how ELA CST percent proficient data are distributed among the six elementary schools in each group. A comparison between non-Reading First schools and Reading First schools' percentages of Grade 3 students scoring proficient or above on the ELA CST between 2005 and 2009 showed that in 2005 and 2006, the first 2 years of implementation, a greater percentage of students in non-Reading First schools were higher performing than students in Reading First schools, as reflected

in the box plot comparison by the medians, upper whiskers, and lower whiskers for both years. In the 2008 comparison of the median score of non-Reading First schools (20.35) and of Reading First schools (20.2), it appeared that the Reading First schools had closed the gap between groups. Further observation of longitudinal data shows that between 2006 and 2008, Reading First schools had a median score range of only .3 percentage points. Additionally, non-Reading First schools showed minimal change between 2006 and 2007 and, in 2008 dropped 2.70 percentage points. In 2009, non-Reading First schools grew by 7.65 percentage points and the gap between the median score in non-Reading First schools (28) and Reading First schools (21.7) had again widened by 7.7 percentage points.

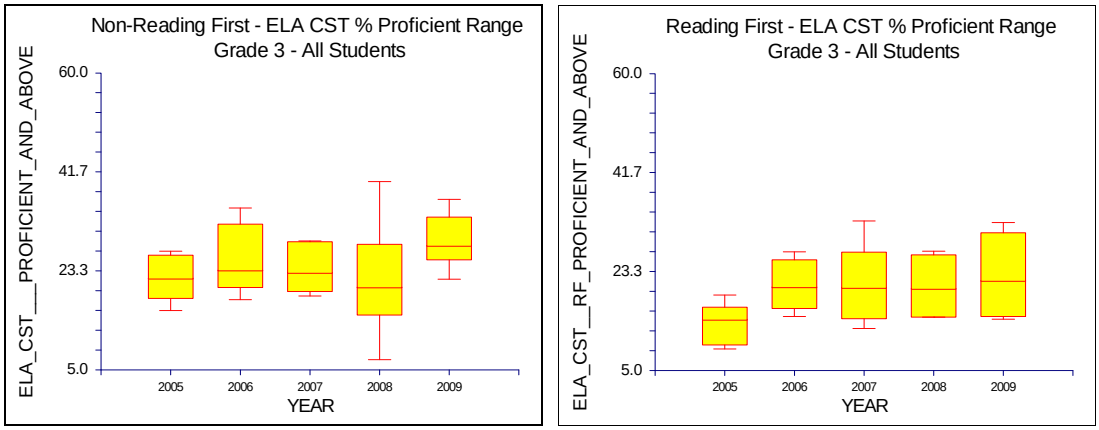
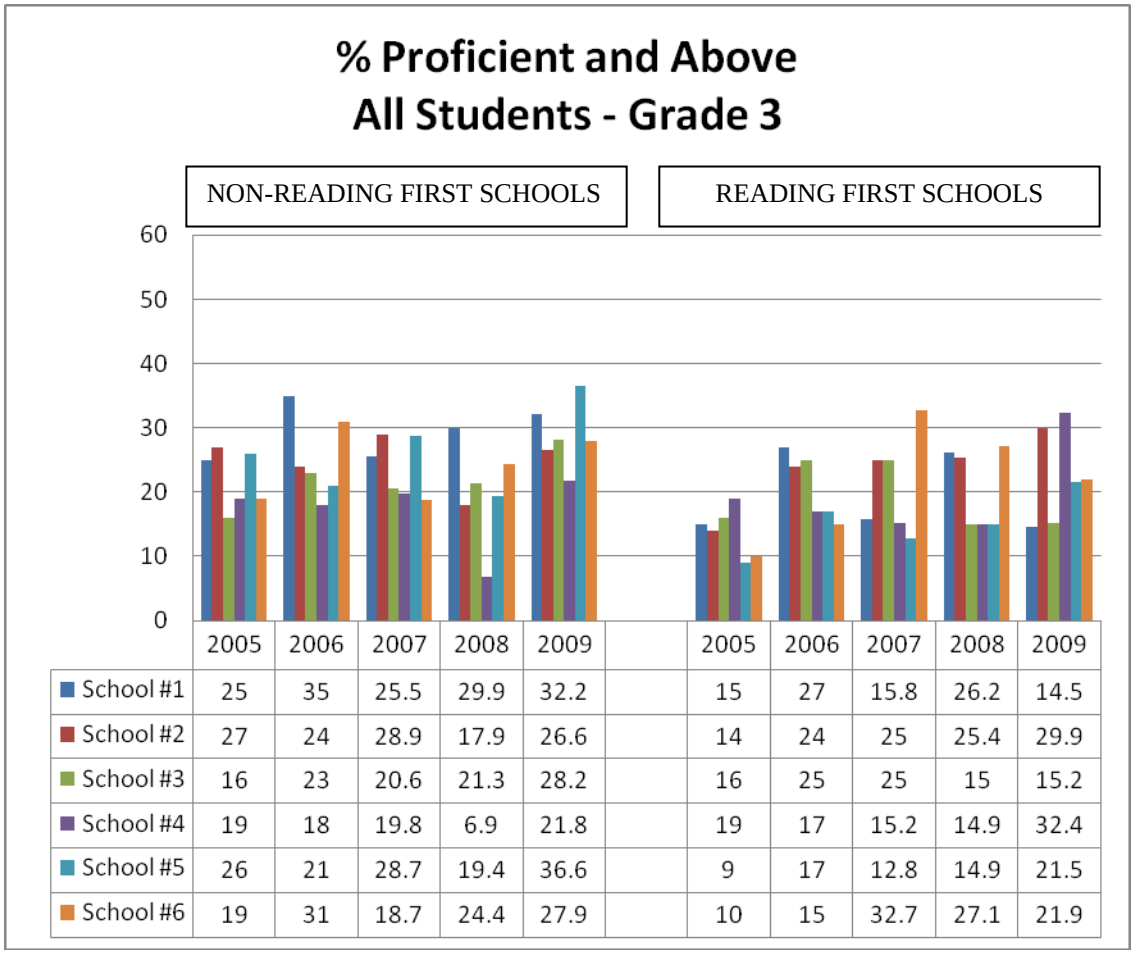


Figure 4. Box plots of the percentage of students proficient and above in Grade 3 on the ELA CST for all non-Reading First schools and all Reading First schools.

Figure 5 illustrates the percentage of students scoring proficient or above. This chart provides a visual comparison within, and between, non-Reading First schools and Reading First schools. A comparison within the non-Reading First schools group reveals a variance in the range in percent proficient each year between 2005 and 2009; the range equals 11 percentage points, 17 percentage points, 10.1 percentage points, 23 percentage points, and 14.8 percentage points respectively. A comparison within the Reading First

schools group reflect a similar variance in the range in percent proficient each year between 2005 and 2009; the range equals 10 percentage points, 12 percentage points, 19.9 percentage points, 12.2 percentage points, and 17.9 percentage points respectively.



	2005	2006	2007	2008	2009		2005	2006	2007	2008	2009
School #1	25	35	25.5	29.9	32.2		15	27	15.8	26.2	14.5
School #2	27	24	28.9	17.9	26.6		14	24	25	25.4	29.9
School #3	16	23	20.6	21.3	28.2		16	25	25	15	15.2
School #4	19	18	19.8	6.9	21.8		19	17	15.2	14.9	32.4
School #5	26	21	28.7	19.4	36.6		9	17	12.8	14.9	21.5
School #6	19	31	18.7	24.4	27.9		10	15	32.7	27.1	21.9

Figure 5. Percentage of all students scoring proficient and above in Grade 3 on the ELA CST for non-Reading First schools and Reading First schools.

Calculation of the mean and median percentage of all students scoring proficient and above between 2005 and 2009 is provided for non-Reading First schools and for Reading First schools. Table 10 shows that the mean score of all non-Reading First schools increased 6.9 percentage points, from 22 to 28.9 between 2005 and 2009. The mean score of Reading First schools increased 8.8 percentage points, from 13.8 to 22.6 between 2005 and 2009. The difference, or gap, in the mean score between non-Reading

First and Reading First schools between 2005 and 2009 decreased from 9.8 percentage points in 2005 to 6.3 percentage points in 2009.

Table 10

Mean and Median Percentages of Grade 3 Students Proficient and Above Between 2005 and 2009 for All Non-Reading First Schools and All Reading First Schools

% Proficient and Above				
All Students—Grade 3				
	All Non-Reading First Schools		All Reading First Schools	
	Median	Mean	Median	Mean
2005	22	22	14.5	13.8
2006	23.5	25.3	20.5	20.8
2007	23.05	23.7	20.4	21.1
2008	20.35	20	20.2	20.6
2009	28	28.9	21.7	22.6

Grade 4. Figure 6 displays how ELA CST percent proficient data is distributed among the six elementary schools in each group. A comparison between non-Reading First schools and Reading First schools for the percentage of Grade 4 students scoring proficient and above on the ELA CST between 2005 and 2009 showed that in 2005 and 2006, the first 2 years of implementation, a greater percentage of students in non-Reading First schools were higher performing than students in Reading First schools, as reflected in the box plot comparison by the medians, upper whiskers, and lower whiskers for both years. In 2007 and 2008, the median score of both the non-Reading First schools (38.6 and 37.75 respectively) and of the Reading First schools (34 and 34.6 respectively) showed a minimal increase in the percentage of students proficient and above in Grade 4. In 2009, both groups experienced an increase and the gap between the median score in non-Reading First schools (42.1) and Reading First schools (38.15) had narrowed from 7.5 percentage points in 2005 to 3.95 percentage points in 2009.

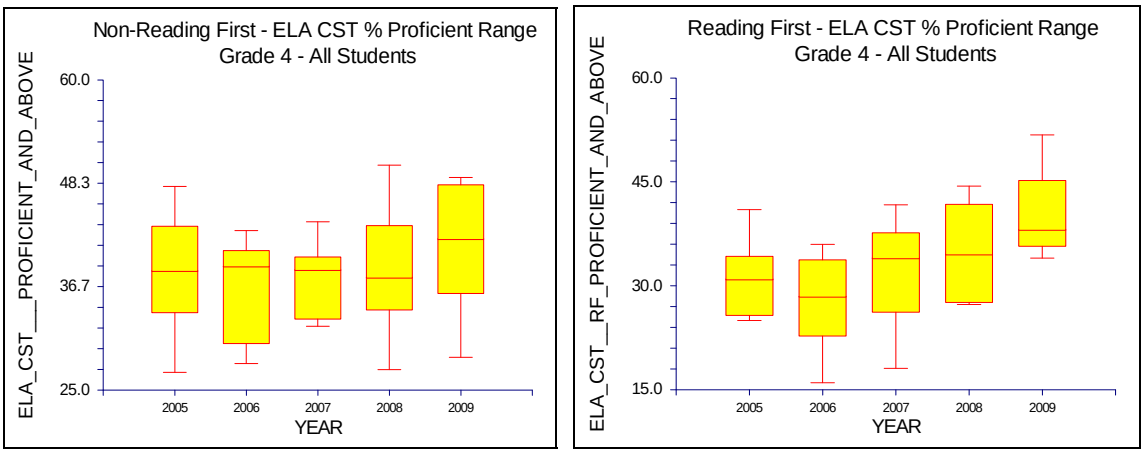
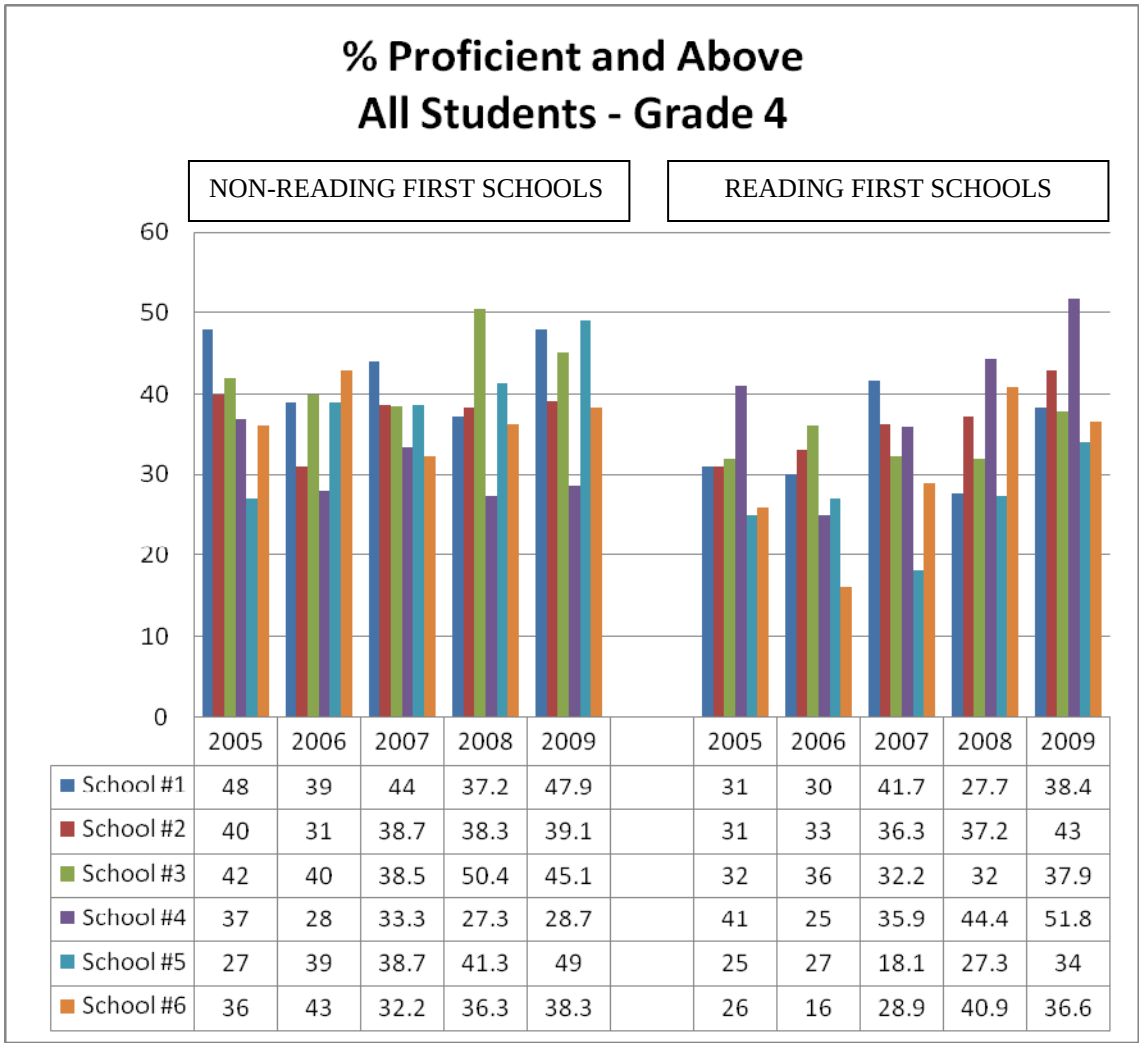


Figure 6. Box plots of the percentage of students proficient and above in Grade 3 on the ELA CST for all non-Reading First schools and all Reading First schools.

Figure 7 below illustrates the percentage of students scoring proficient and above. This chart provides a visual comparison within, and between, non-Reading First schools and Reading First schools. A comparison of schools within the non-Reading First schools group reveals a sizable range in percent proficient each year between 2005 and 2009; the range equals 21 percentage points, 15 percentage points, 11.3 percentage points, 23.1 percentage points, and 20.3 percentage points respectively. A comparison of schools within the Reading First group also reflects a wide range in percent proficient each year between 2005 and 2009; the range equals 16 percentage points, 20 percentage points, 23.6 percentage points, 17.1 percentage points, and 17.8 percentage points respectively.



	2005	2006	2007	2008	2009		2005	2006	2007	2008	2009
School #1	48	39	44	37.2	47.9		31	30	41.7	27.7	38.4
School #2	40	31	38.7	38.3	39.1		31	33	36.3	37.2	43
School #3	42	40	38.5	50.4	45.1		32	36	32.2	32	37.9
School #4	37	28	33.3	27.3	28.7		41	25	35.9	44.4	51.8
School #5	27	39	38.7	41.3	49		25	27	18.1	27.3	34
School #6	36	43	32.2	36.3	38.3		26	16	28.9	40.9	36.6

Figure 7. Percentage of all students scoring proficient and above in Grade 4 on the ELA CST for non-Reading First schools and Reading First schools.

Calculation of the mean and median percentage of all students scoring proficient and above between 2005 and 2009 is provided for non-Reading First schools and for Reading First schools. Table 11 shows that the mean score of all non-Reading First schools increased 3.05 percentage points, from 38.3 to 41.35 between 2005 and 2009. The mean score of Reading First schools increased 9.3 percentage points, from 31 to 40.3 between 2005 and 2009. The difference, or gap, in the mean score between non-Reading First and Reading First schools between 2005 and 2009 decreased from 7.3 percentage points in 2005 to 1.05 percentage points in 2009.

Table 11

Mean and Median Percentages of Grade 4 Students Proficient and Above Between 2005 and 2009 for All Non-Reading First Schools and All Reading First Schools

% Proficient and Above				
All Students—Grade 4				
	All Non-Reading First Schools		All Reading First Schools	
	Median	Mean	Median	Mean
2005	38.5	38.3	31	31
2006	39	36.7	28.5	27.9
2007	38.6	37.6	34	32.2
2008	37.75	38.5	34.6	34.9
2009	42.1	41.35	38.15	40.3

Grade 5. Below, Figure 8 displays how ELA CST percent proficient data is distributed among the six elementary schools in each group. A comparison between non-Reading First schools and Reading First schools of the percentage of Grade 5 students scoring proficient or above on the ELA CST between 2005 and 2009 showed that in 2005, 2006, and 2007, the first 3 years of implementation, a greater percentage of students in non-Reading First schools were higher performing than students in Reading First schools, as reflected in the box plot comparison by the medians, upper whiskers, and lower whiskers for both years. Between 2006 and 2008, the median score for non-Reading First schools remained relatively constant (31, 31.35, and 31.1 respectively). By contrast, between 2006 and 2008 the median score for Reading First schools increased by 4.9 percentage points (23.5, 20.6, and 28.4 respectively). In 2009, both groups experienced an increase and the gap between the median score in non-Reading First schools (37.4) and Reading First schools (35.35) had narrowed from 6.3 percentage points in 2005 to 2.05 percentage points in 2009.

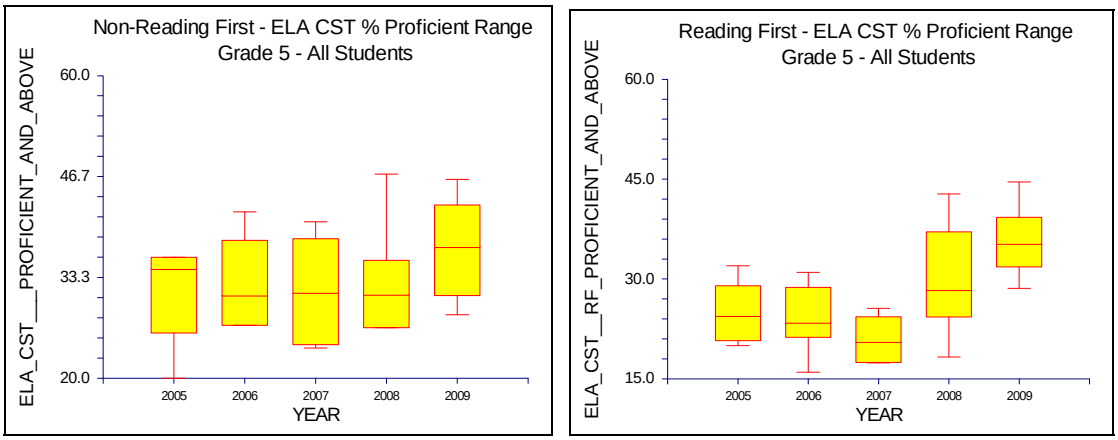
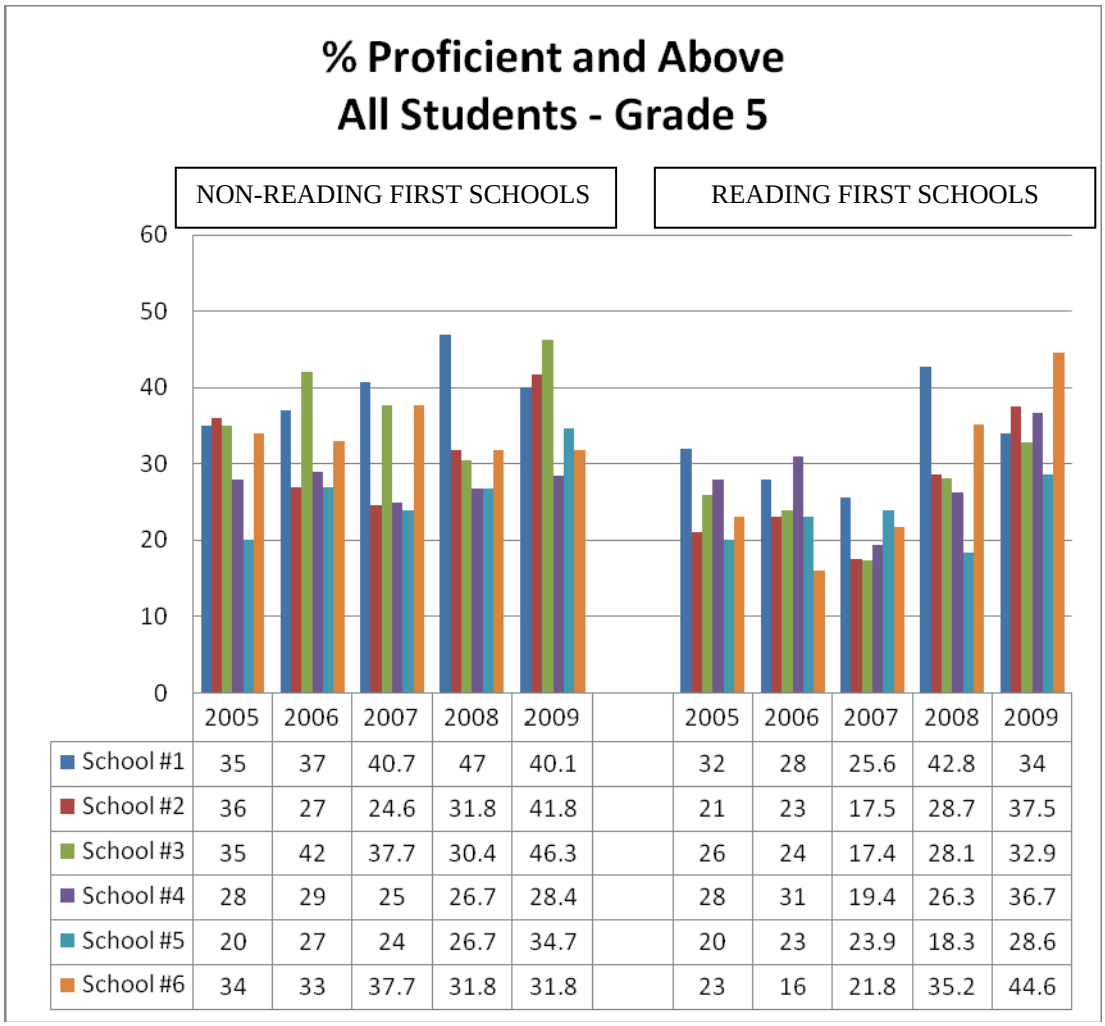


Figure 8. Box plots of the percentage of students proficient and above in Grade 3 on the ELA CST for all non-Reading First schools and all Reading First schools.

Figure 9 illustrates the percentage of students scoring proficient or above. This figure provides a visual comparison within, and between, non-Reading First schools and Reading First schools. A comparison of schools within the non-Reading First schools group reveals a similar range in percentage proficient each year between 2005 and 2009; the range equals 16 percentage points, 15 percentage points, 16.7 percentage points, 20.3 percentage points, and 17.9 percentage points respectively. In comparison, Reading First schools have a considerable variance in range in percentage proficient each year between 2005 and 2009; the range equals 12 percentage points, 15 percentage points, 8.2 percentage points, 24.5 percentage points, and 16 percentage points respectively.



	2005	2006	2007	2008	2009		2005	2006	2007	2008	2009
School #1	35	37	40.7	47	40.1		32	28	25.6	42.8	34
School #2	36	27	24.6	31.8	41.8		21	23	17.5	28.7	37.5
School #3	35	42	37.7	30.4	46.3		26	24	17.4	28.1	32.9
School #4	28	29	25	26.7	28.4		28	31	19.4	26.3	36.7
School #5	20	27	24	26.7	34.7		20	23	23.9	18.3	28.6
School #6	34	33	37.7	31.8	31.8		23	16	21.8	35.2	44.6

Figure 9. Percentage of all students scoring proficient and above in Grade 5 on the ELA CST for non-Reading First schools and Reading First schools.

Calculation of the mean and median percentages of all students scoring proficient and above between 2005 and 2009 is provided for non-Reading First schools and for Reading First schools. Table 12 shows that the mean score of all non-Reading First schools increased 5.9 percentage points, from 31.3 to 37.2 between 2005 and 2009. The mean score of Reading First schools increased 10.7 percentage points, from 25 to 35.7 between 2005 and 2009. The difference, or gap, in the mean score between non-Reading First and Reading First schools between 2005 and 2009 decreased from 6.3 percentage points in 2005 to 1.5 percentage points in 2009.

Table 12

Mean and Median Percentages of Grade 5 Students Proficient and Above Between 2005 and 2009 for All Non-Reading First Schools and All Reading First Schools

% Proficient and Above				
All Students—Grade 5				
	All Non-Reading First Schools		All Reading First Schools	
	Median	Mean	Median	Mean
2005	34.5	31.3	24.5	25
2006	31	32.5	23.5	24.2
2007	31.35	31.6	20.6	20.9
2008	31.1	32.4	28.4	29.9
2009	37.4	37.2	35.35	35.7

Percent proficient and above descriptive information summary. Table 13 provides a descriptive information summary for all non-Reading First schools and all Reading First schools between 2005 and 2009. The mean percentage of all students proficient and above for all schools was calculated and disaggregated by (a) participation status in Reading First, (b) grade level, and (c) both participation and grade level.

Table 13

Descriptive Information of Percentage Proficient and Above for All Students

Student Achievement in Grades 2 Through 5 Within and Between Reading First Schools and Non-Reading First Schools Between 2005 and 2009—All Students			
Term	Count	Mean	Standard Error
All	240	30.53542	
A: Reading First Y/N			
N	120	33.01583	0.6985742
Y	120	28.055	0.6985742
B: Grade Level			
2	60	34.68333	0.9879332
3	60	22.045	0.9879332
4	60	35.855	0.9879332
5	60	29.55833	0.9879332
AB: Reading First Y/N, Grade Level			
N,2	30	37.30333	1.397148
N,3	30	24.31	1.397148
N,4	30	38.47667	1.397148

(*table continues*)

Student Achievement in Grades 2 Through 5 Within and Between Reading First Schools and Non-Reading First Schools Between 2005 and 2009—All Students			
Term	Count	Mean	Standard Error
N,5	30	31.97333	1.397148
Y,2	30	32.06333	1.397148
Y,3	30	19.78	1.397148
Y,4	30	33.23333	1.397148
Y,5	30	27.14333	1.397148

Figure 10 shows that between 2005 and 2009, the mean score of all students at non-Reading First schools was higher than the mean score of all students at Reading First schools. Additionally, the mean score of students in Grades 2 and 4 were higher in both groups when compared to the mean score of students in Grades 3 and 5 in their respective group.

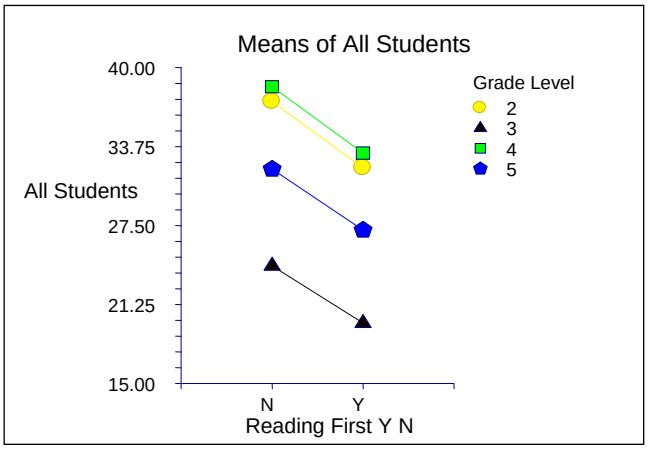


Figure 10. Grade level comparison of non-Reading First and Reading First schools' mean of all students proficient and above between 2005 and 2009.

An ANOVA was conducted for each grade level to compare the percentage proficient and above between 2005 and 2009 for non-Reading First and Reading First schools. Tables 14, 15, 16, and 17 show the ANOVA calculations for Grades 2 through 5 respectively. Using .05 *p* value to determine statistical significance, Tables 14 through 17 indicate that the data presented are statistically significant, subsequently resulting in the decision to reject the null hypothesis at each grade level.

Table 14

Grade 2—Percentage of Students Proficient and Above ANOVA Calculation

All Students—Grade 2						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	411.864	411.864	5.47	0.022797*	YES
S	58	4366.06	75.27689			
Total (Adjusted)	59	4777.923				
Total	60					

* Term significant at alpha = 0.05

Table 15

Grade 3—Percentage of Students Proficient and Above ANOVA Calculation

All Students—Grade 3						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	307.8135	307.8135	6.95	0.010733*	YES
S	58	2568.555	44.28543			
Total (Adjusted)	59	2876.368				
Total	60					

* Term significant at alpha = 0.05

Table 16

Grade 4—Percentage of Students Proficient and Above ANOVA Calculation

All Students—Grade 4						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	412.3882	412.3882	8.34	0.005443*	YES
S	58	2868.02	49.44863			
Total (Adjusted)	59	3280.408				
Total	60					

* Term significant at alpha = 0.05

Table 17

Grade 5—Percentage of Students Proficient and Above ANOVA Calculation

All Students—Grade 5						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	521.5602	521.5602	10.36	0.002107*	YES

(*table continues*)

All Students—Grade 5						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
S	58	2919.026	50.32803			
Total (Adjusted)	59	3440.586				
Total	60					

* Term significant at alpha = 0.05

Research question 2. Question 2 asks: How did second through fifth grade literacy performance of English Language Learners, Hispanic, African American, and white students on the CST at six Lancaster School District elementary schools that had received Reading First grant resources and implemented the Reading First program compare with the literacy performance of the same subgroups, respectively, at the other six elementary schools in the district that did not receive the same resources between 2005 and 2009? The ELA CST mean scale score was collected by grade level and significant subgroup. An ANOVA was conducted to determine statistical significance.

Comparison and descriptive information for English language learners. Table 18 provides a descriptive information summary for English language learners at all non-Reading First schools and all Reading First schools between 2005 and 2009. The ELA CST mean scale scores of ELL students for all schools was obtained from CDE STAR data Web site, recorded and disaggregated by (a) the schools participation status in Reading First, (b) grade level, and (c) both participation and grade level.

Table 18

Descriptive Information for the ELA CST Mean Scale Scores for English Language Learners

Student Achievement in Grades 2 Through 5 Within and Between Reading First Schools and Non-Reading First Schools Between 2005 and 2009—English Language Learners			
Term	Count	Mean	Standard Error
All	230	308.3074	

(*table continues*)

Student Achievement in Grades 2 Through 5 Within and Between Reading First Schools and Non-Reading First Schools Between 2005 and 2009—English Language Learners			
Term	Count	Mean	Standard Error
A: Reading First Y/N			
N	112	310.7518	1.35906
Y	118	305.9873	1.324057
B: Grade Level			
2	58	313.7621	1.888573
3	57	292.3018	1.905067
4	56	312.6286	1.922002
5	59	314.3068	1.8725
AB: Reading First Y/N, Grade Level			
N,2	28	315.5107	2.718121
N,3	28	295.9643	2.718121
N,4	27	314.9148	2.767999
N,5	29	316.5586	2.670846
Y,2	30	312.13	2.625954
Y,3	29	288.7655	2.670846
Y,4	29	310.5	2.670846
Y,5	30	312.13	2.625954

Figure 11 shows that between 2005 and 2009 the means of ELL CST mean scale score for students at non-Reading First schools in Grades 4 and 5 were higher than the means of ELL CST mean scale score for students at Reading First schools. The means of ELL CST mean scale score for students at Reading First schools in Grades 2 and 3 were higher than the means of ELL CST mean scale score for students at non-Reading First schools between 2005 and 2009.

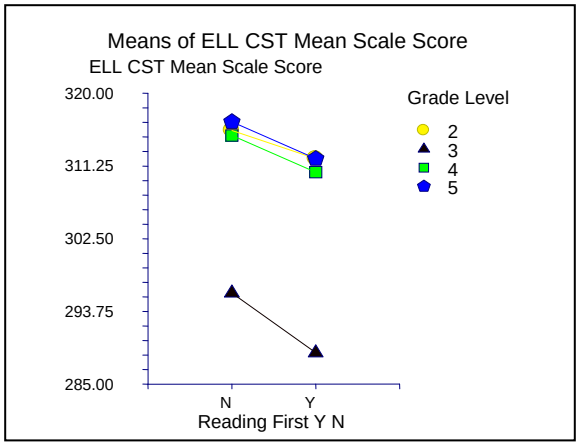


Figure 11. Grade level comparison of non-Reading First and Reading First schools ELA CST mean scale scores for ELL students between 2005 and 2009.

An ANOVA was conducted for ELL students in each grade level to compare the mean ELA CST scale scores between 2005 and 2009 between non-Reading First and Reading First schools. Tables 19, 20, 21, and 22 show the ANOVA calculations for ELL students in Grades 2 through 5 respectively. Using .05 *p* value to determine statistical significance, Tables 19, 20, and 21 (Grades 2, 4, and 5 respectively) all indicate that the data presented are not statistically significant, subsequently resulting in the decision to accept the null hypothesis at each grade level. Table 22 has a *p* Value of 0.018164, which is less than .05, and the decision is, therefore, reject the null hypothesis; the data presented are statistically significant for Grade 3 ELL. An ANOVA calculation for all ELL students in Grades 2 through 5 was conducted and the data output is contained in Table 23. When conducting the ANOVA calculation for all ELL students in Grades 2 through 5, the *p* value is 0.034286; the data is considered statistically significant, resulting in a decision to reject the null hypothesis.

Table 19

Grade 2—ANOVA Calculation for English Language Learners' ELA CST Mean Scale Scores Between 2005 and 2009

ELL Students—Grade 2						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	165.5268	165.5268	0.61	0.437647	NO
S	56	15167.25	270.8438			
Total (Adjusted)	57	15332.78				
Total	58					

* Term significant at alpha = 0.05

Table 20

Grade 3—ANOVA Calculation for English Language Learners' ELA CST Mean Scale Scores Between 2005 and 2009

ELL Students—Grade 3						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	738.2401	738.2401	5.93	0.018164*	YES
S	55	6848.15	124.5118			
Total (Adjusted)	56	7586.39				
Total	57					

* Term significant at alpha = 0.05

Table 21

Grade 4—ANOVA Calculation for English Language Learners' ELA CST Mean Scale Scores Between 2005 and 2009

ELL Students—Grade 4						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	272.5202	272.5202	1.87	0.176627	NO
S	54	7850.614	145.3817			
Total (Adjusted)	55	8123.134				
Total	56					

* Term significant at alpha = 0.05

Table 22

Grade 5—ANOVA Calculation for English Language Learners' ELA CST Mean Scale Scores Between 2005 and 2009

ELL Students—Grade 5						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	289.2039	289.2039	1.03	0.315261	NO
S	57	16058.91	281.7353			
Total (Adjusted)	58	16348.12				
Total	59					

* Term significant at alpha = 0.05

Table 23

All Grades 2 Through 5—ANOVA Calculation for English Language Learners' ELA CST Mean Scale Scores Between 2005 and 2009

ELL Students—All Grades 2 through 5						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	1304.387	1304.387	4.53	0.034286*	YES
S	228	65583.25	287.6458			
Total (Adjusted)	229	66887.64				
Total	230					

* Term significant at alpha = 0.05

Comparison and descriptive information for Hispanic students. Table 24 provides a descriptive information summary for Hispanic students at non-Reading First schools and Reading First schools between 2005 and 2009. The ELA CST mean scale scores of Hispanic students for all schools was obtained from CDE STAR data Web site, recorded and disaggregated by (a) the schools participation status in Reading First, (b) grade level, and (c) both participation and grade level.

Table 24

Descriptive Information for the ELA CST Mean Scale Scores for Hispanic Students

Student Achievement in Grades 2 Through 5 Within and Between Reading First Schools and Non-Reading First Schools Between 2005 and 2009—Hispanic			
Means and Effects Section			
Term	Count	Mean	Standard Error
All	240	321.1108	
A: Reading First Y/N			
N	120	324.1433	0.9470978
Y	120	318.0783	0.9470978
B: Grade Level			
2	60	324.505	1.339399
3	60	306.3883	1.339399
4	60	330.7983	1.339399
5	60	322.7517	1.339399
AB: Reading First Y/N, Grade Level			

(*table continues*)

Student Achievement in Grades 2 Through 5 Within and Between Reading First Schools and Non-Reading First Schools Between 2005 and 2009—Hispanic			
Means and Effects Section			
Term	Count	Mean	Standard Error
N,2	30	327.3967	1.894196
N,3	30	309.5767	1.894196
N,4	30	334.2967	1.894196
N,5	30	325.3033	1.894196
Y,2	30	321.6133	1.894196
Y,3	30	303.2	1.894196
Y,4	30	327.3	1.894196
Y,5	30	320.2	1.894196

Figure 12 shows that between 2005 and 2009 the means of Hispanic ELA CST mean scale score for students at non-Reading First schools in Grades 2 through 5 were higher than the means of Hispanic ELA CST mean scale score for students at Reading First schools.

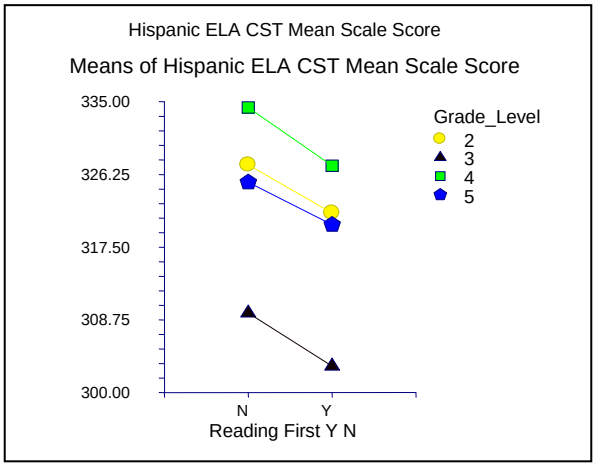


Figure 12. Grade-level comparison of non-Reading First and Reading First schools ELA CST mean scale scores for Hispanic students between 2005 and 2009.

An ANOVA was conducted for Hispanic students in each grade level to compare the mean ELA CST scale scores between 2005 and 2009 between non-Reading First and Reading First schools. Tables 25, 26, 27, and 28 show the ANOVA calculations for Hispanic students in Grades 2 through 5 respectively. Using .05 *p* value to determine statistical significance, only Table 25 (Grade 2) indicates that the data presented are not

statistically significant, subsequently resulting in the decision to accept the null hypothesis. Tables 26, 27, and 28 have a *p* value less than .05 and the decision is, therefore, to reject the null hypothesis; the data presented are statistically significant for Hispanic students in Grades 3, 4, and 5. An ANOVA calculation for all Hispanic students in Grades 2 through 5 was conducted and the data output is contained in Table 29. When conducting the ANOVA calculation for all Hispanic students in Grades 2 through 5, the *p* value is 0.000696; the data are considered statistically significant, resulting in a decision to reject the null hypothesis.

Table 25

Grade 2—ANOVA Calculation for Hispanic Students' ELA CST Mean Scale Scores Between 2005 and 2009

ELL Students—Grade 2						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probabiltiy Level	Statistically Significant
A: Reading First Y/N	1	501.7042	501.7042	3.72	0.058725	NO
S	58	7826.224	134.9349			
Total (Adjusted)	59	8327.929				
Total	60					

* Term significant at alpha = 0.05

Table 26

Grade 3—ANOVA Calculation for Hispanic Students' ELA CST Mean Scale Scores Between 2005 and 2009

Hispanic Students—Grade 3						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	609.9282	609.9282	6.29	0.014993*	YES
S	58	5627.813	97.03127			
Total (Adjusted)	59	6237.742				
Total	60					

* Term significant at alpha = 0.05

Table 27

Grade 4—ANOVA Calculation for Hispanic Students' ELA CST Mean Scale Scores Between 2005 and 2009

Hispanic Students—Grade 4						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	734.3002	734.3002	6.06	0.016806*	YES
S	58	7025.81	121.1347			
Total (Adjusted)	59	7760.11				
Total	60					

* Term significant at alpha = 0.05

Table 28

Grade 5—ANOVA Calculation for Hispanic Students' ELA CST Mean Scale Scores Between 2005 and 2009

Hispanic Students—Grade 5						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	390.6602	390.6602	5.04	0.028542*	YES
S	58	4492.47	77.45638			
Total (Adjusted)	59	4883.13				
Total	60					

* Term significant at alpha = 0.05

Table 29

All Grades 2 Through 5—ANOVA Calculation for Hispanic Students' ELA CST Mean Scale Scores Between 2005 and 2009

Hispanic Students—All Grades 2 through 5						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	2207.053	2207.053	11.81	0.000696*	YES
S	238	44490.6	186.9353			
Total (Adjusted)	239	46697.65				
Total	240					

* Term significant at alpha = 0.05

Comparison and descriptive information for African American students. Table 30 provides a descriptive information summary for English language learners at all non-

Reading First schools and all Reading First schools between 2005 and 2009. The ELA CST mean scale scores of African American students for all schools was obtained from CDE STAR data Web site, recorded, and disaggregated by (a) the schools participation status in Reading First, (b) grade level, and (c) both participation and grade level.

Table 30

Descriptive Information for the ELA CST Mean Scale Scores for African American Students

Student Achievement in Grades 2 Through 5 Within and Between Reading First Schools and Non-Reading First Schools Between 2005 and 2009—African American			
Term	Count	Mean	Standard Error
All	240	311.095	
A: Reading First Y/N			
N	120	313.3575	1.039272
Y	120	308.8325	1.039272
B: Grade Level			
2	60	314.1517	1.469753
3	60	297.13	1.469753
4	60	320.325	1.469753
5	60	312.7733	1.469753
AB: Reading First Y/N, Grade Level			
N,2	30	317.4967	2.078544
N,3	30	299.3133	2.078544
N,4	30	321.6433	2.078544
N,5	30	314.9767	2.078544
Y,2	30	310.8067	2.078544
Y,3	30	294.9467	2.078544
Y,4	30	319.0067	2.078544
Y,5	30	310.57	2.078544

Figure 13 shows that between 2005 and 2009 the means of African American CST mean scale score for students at non-Reading First schools in grades two through five was higher than the means of African American CST mean scale score for students at Reading First schools during the same period of time.

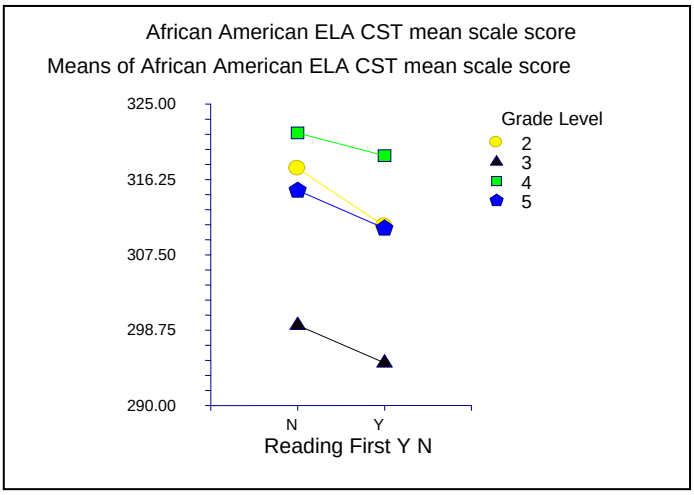


Figure 13. Grade-level comparison of non-Reading First and Reading First schools ELA CST mean scale scores for African American students between 2005 and 2009.

An ANOVA was conducted for African American students in each grade level to compare the mean ELA CST scale scores between 2005 and 2009 between non-Reading First and Reading First schools. Tables 31, 32, 33, and 34 show the ANOVA calculations for African American students in Grades 2 through 5 respectively. Using .05 *p* value to determine statistical significance, tables 31 through 34 (Grades 2, 3, 4, and 5 respectively) all indicate that the data presented is not statistically significant, subsequently resulting in the decision to accept the null hypothesis at each grade level. An ANOVA calculation for all African American students in Grades 2 through 5 was conducted and the data output is contained in Table 35. The ANOVA calculation for all African American students in Grades 2 through 5 found a *p* value of 0.014025, which is less than .05; the data are considered statistically significant, resulting in a decision to reject the null hypothesis.

Table 31

Grade 2—ANOVA Calculation for ELA CST Mean Scale Scores African American Students Between 2005 and 2009

African American Students—Grade 2						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	671.3415	671.3415	3.49	0.066634	NO
S	58	11143.39	192.1274			
Total (Adjusted)	59	11814.73				
Total	60					

* Term significant at alpha = 0.05

Table 32

Grade 3—ANOVA Calculation for ELA CST Mean Scale Scores African American Students Between 2005 and 2009

African American Students—Grade 3						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	286.0167	286.0167	2.84	0.097441	NO
S	58	5845.589	100.786			
Total (Adjusted)	59	6131.606				
Total	60					

* Term significant at alpha = 0.05

Table 33

Grade 4—ANOVA Calculation for ELA CST Mean Scale Scores African American Students Between 2005 and 2009

African American Students—Grade 4						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	104.2802	104.2802	1.01	0.318325	NO
S	58	5969.612	102.9243			
Total (Adjusted)	59	6073.893				
Total	60					

* Term significant at alpha = 0.05

Table 34

Grade 5—ANOVA Calculation for ELA CST Mean Scale Scores African American Students Between 2005 and 2009

African American Students—Grade 5						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	291.2807	291.2807	2.38	0.128668	NO
S	58	7111.017	122.6037			
Total (Adjusted)	59	7402.297				
Total	60					

* Term significant at alpha = 0.05

Table 35

All Grades 2 Through 5—ANOVA Calculation for ELA CST Mean Scale Scores African American Students Between 2005 and 2009

African American Students—All Grades 2 through 5						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	1228.537	1228.537	6.13	0.014025*	YES
S	238	47736.44	200.5733			
Total (Adjusted)	239	48964.97				
Total	240					

* Term significant at alpha = 0.05

Comparison and descriptive information for white students. Table 36 provides a descriptive information summary for white students at all non-Reading First schools and all Reading First schools between 2005 and 2009. The ELA CST mean scale scores of white students for all schools was obtained from CDE STAR data Web site, recorded, and disaggregated by (a) the schools' participation status in Reading First, (b) grade level, and (c) both participation and grade level.

Table 36

Descriptive Information for the ELA CST Mean Scale Scores for White Students

Student Achievement in Grades 2 Through 5 Within and Between Reading First Schools and Non-Reading First Schools Between 2005 and 2009—White			
Term	Count	Mean	Standard Error
All	238	341.4655	
A: Reading First Y/N			
N	118	343.5508	1.373741
Y	120	339.415	1.362245
B: Grade Level			
2	59	345.5627	1.942762
3	59	329.4847	1.942762
4	60	350.5483	1.926505
5	60	340.135	1.926505
AB: Reading First Y/N, Grade Level			
N,2	29	348.5172	2.771065
N,3	29	331.9759	2.771065
N,4	30	350.0433	2.724489
N,5	30	343.4467	2.724489
Y,2	30	342.7067	2.724489
Y,3	30	327.0767	2.724489
Y,4	30	351.0533	2.724489
Y,5	30	336.8233	2.724489

Between 2005 and 2009 (see Figure 14) the ELA CST mean for white students at non-Reading First schools in Grades 2, 3, and 5 was higher than those for white students at Reading First schools. The ELA CST mean for white students at Reading First schools in Grade 4 was higher than the score for white students at non-Reading First schools.

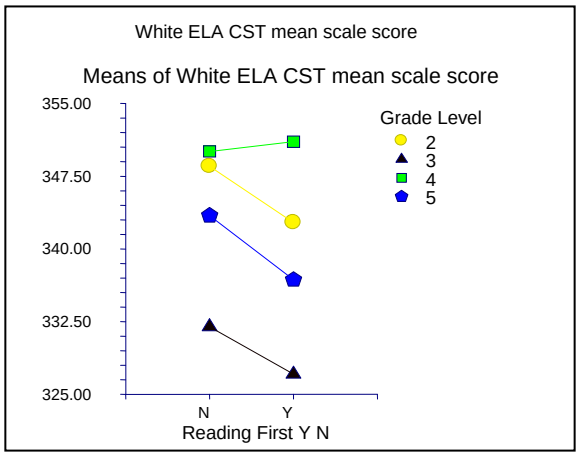


Figure 14. Grade level comparison of non-Reading First and Reading First schools ELA CST mean scale scores for white students between 2005 and 2009.

An ANOVA for white students in each grade level compared the mean ELA CST scale scores between 2005 and 2009 for non-Reading First and Reading First schools. Tables 37, 38, 39, and 40 show the ANOVA calculations for white students in Grades 2 through 5. Using .05 *p* value to determine statistical significance, Tables 37 through 40 (Grades 2, 3, 4, and 5 respectively) all indicate that the data are not statistically significant, resulting in the decision to accept the null hypothesis at each grade level. An ANOVA calculation for all white students in Grades 2 through 5 was conducted and the data output is contained in Table 41. When conducting the ANOVA calculation for all white students in Grades 2 through 5, the *p* value is 0.058106; the data are not considered statistically significant, resulting in a decision to accept the null hypothesis.

Table 37

Grade 2—ANOVA Calculation for White Students' ELA CST Mean Scale Scores Between 2005 and 2009

White Students—Grade 2						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	497.8579	497.8579	1.93	0.170261	NO
S	57	14710.52	258.0793			
Total (Adjusted)	58	15208.38				
Total	59					

* Term significant at alpha = 0.05

Table 38

Grade 3—ANOVA Calculation for White Students' ELA CST Mean Scale Scores Between 2005 and 2009

White Students—Grade 3						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	353.9295	353.9295	1.68	0.199663	NO
S	57	11982.05	210.2113			

(*table continues*)

White Students—Grade 3						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
Total (Adjusted)	58	12335.98				
Total	59					

* Term significant at alpha = 0.05

Table 39

Grade 4—ANOVA Calculation for White Students' ELA CST Mean Scale Scores Between 2005 and 2009

White Students—Grade 4						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	15.3015	15.3015	0.07	0.786861	NO
S	58	12027.17	207.365			
Total (Adjusted)	59	12042.47				
Total	60					

* Term significant at alpha = 0.05

Table 40

Grade 5—ANOVA Calculation for White Students' ELA CST Mean Scale Scores Between 2005 and 2009

White Students—Grade 5						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	658.0281	658.0281	3.05	0.085843	NO
S	58	12497.87	215.4805			
Total (Adjusted)	59	13155.9				
Total	60					

* Term significant at alpha = 0.05

Table 41

All Grades 2 Through 5—ANOVA Calculation for White Students' ELA CST Mean Scale Scores Between 2005 and 2009

White Students—All Grades 2 through 5						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
A: Reading First Y/N	1	1017.69	1017.69	3.63	0.058106	NO

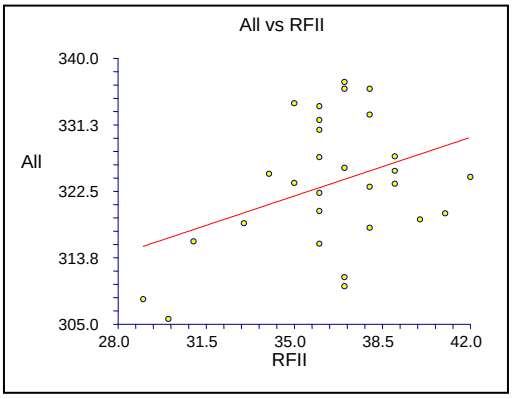
(*table continues*)

White Students—All Grades 2 through 5						
Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Probability Level	Statistically Significant
S	236	66240.33	280.6794			
Total (Adjusted)	237	67258.02				
Total	238					

* Term significant at alpha = 0.05

Research question 3. Question 3 asks: What relationship exists, if any, between the level of implementation of the Reading First program (as measured by the RFII) and literacy achievement of students in second through fifth grade (as measured by the CST) between 2005 and 2009? The ELA CST mean scale score was disaggregated by grade level and significant subgroup and collected for each elementary school in the district. A regression analysis was conducted for each grade level and significant subgroup to calculate the linear regression and correlation. A *p* value of less than .05 is considered statistically significant. The correlation coefficients range from -1.00 to +1.00, with -1.00 representing a negative correlation and +1.00 representing a positive correlation. A value of 0 indicates that no correlation exists.

Grade 2.



All Students vs. RFII—Grade 2

The y-intercept, the estimated value of All Students when RFII is zero, is 283.2489 with a standard error of 18.8567.

The estimated slope is 1.1034 with a standard error of 0.5162.

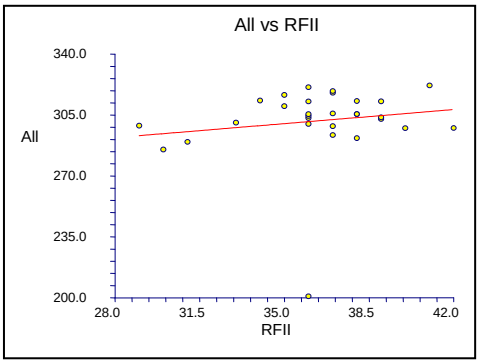
Figure 15. Relationship between Reading First implementation and student achievement on ELA CST 2005–2009: Grade 2. Linear regression scatterplot of the relationship between RFII and Grade 2 ELA CST for all students.

Table 42

Regression Analysis of Reading First Implementation Index and Grade 2 ELA CST Between 2005 and 2009

	T-Value	R-Squared	*p* Value	Correlation	Statistically Significant
All Students	2.1375	0.1447	0.0418	0.3804	YES—Reject Null
African American	1.5952	0.0861	0.1223	0.2935	NO—Accept Null
Hispanic	1.2056	0.0511	0.2384	0.2260	NO—Accept Null
ELL	-1.7807	0.1051	0.0862	-0.3242	NO—Accept Null
White	1.5074	0.0776	0.1433	0.2786	NO—Accept Null

Grade 3.



All Students vs. RFII—Grade 3

The y-intercept, the estimated value of All Students when RFII is zero, is 259.7123 with a standard error of 50.6043.

The estimated slope is 1.1531 with a standard error of 1.3853.

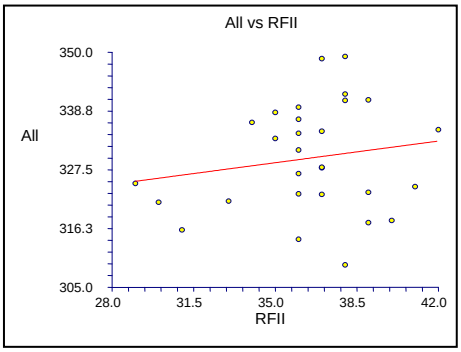
Figure 16. Relationship between Reading First implementation and student achievement on ELA CST 2005–2009: Grade 3. Linear regression scatterplot of the relationship between RFII and Grade 3 ELA CST for all students.

Table 43

Regression Analysis of Reading First Implementation Index and Grade 3 ELA CST Between 2005 and 2009

	T-Value	R-Squared	*p* Value	Correlation	Statistically Significant
All Students	0.8324	0.0250	0.4125	0.1582	NO—Accept Null
African American	0.2201	0.0018	0.8274	0.0423	NO—Accept Null
Hispanic	0.3187	0.0037	0.7524	0.0612	NO—Accept Null
ELL	-0.1324	0.0007	0.8957	-0.0260	NO—Accept Null
White	0.3115	0.0036	0.7578	0.0598	NO—Accept Null

Grade 4.



All Students vs. RFII—Grade 4

The y-intercept, the estimated value of All Students when RFII is zero, is 308.1127 with a standard error of 24.2319.

The estimated slope is 0.5927 with a standard error of 0.6633.

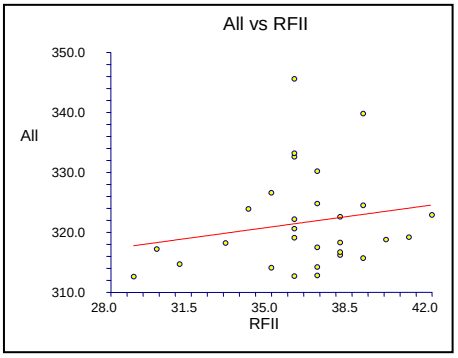
Figure 17. Relationship between Reading First implementation and student achievement on ELA CST 2005–2009: Grade 4. Linear regression scatterplot of the relationship between RFII and Grade 4 ELA CST for all students.

Table 44

Regression Analysis of Reading First Implementation Index and Grade 4 ELA CST Between 2005 and 2009

	T-Value	R-Squared	*p* Value	Correlation	Statistically Significant
All Students	0.8936	0.0287	0.3795	0.1695	NO—Accept Null
African American	-0.1913	0.0014	0.8497	-0.0368	NO—Accept Null
Hispanic	0.6067	0.0135	0.5491	0.1160	NO—Accept Null
ELL	1.3279	0.0635	0.1958	0.2520	NO—Accept Null
White	0.2039	0.0015	0.8400	0.0392	NO—Accept Null

Grade 5.



All Students vs. RFII—Grade 5

The y-intercept, the estimated value of All Students when RFII is zero, is 302.6096 with a standard error of 18.9772.

The estimated slope is 0.5226 with a standard error of 0.5195.

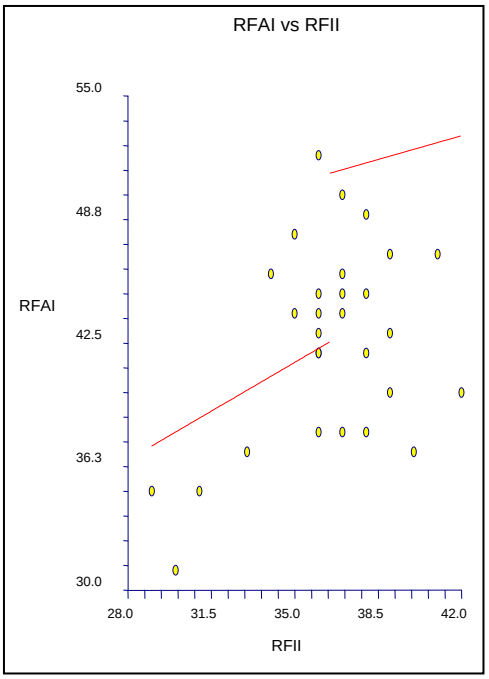
Figure 18. Relationship between Reading First implementation and student achievement on ELA CST 2005–2009: Grade 5. Linear regression scatterplot of the relationship between RFII and Grade 5 ELA CST for all students.

Table 45

Regression Analysis of Reading First Implementation Index and Grade 5 ELA CST Between 2005 and 2009

	T-Value	R-Squared	*p* Value	Correlation	Statistically Significant
All Students	1.0059	0.0361	0.3234	0.1901	NO—Accept Null
African American	-0.092	0.0003	0.9274	-0.0177	NO—Accept Null
Hispanic	0.4361	0.0070	0.6662	0.0836	NO—Accept Null
ELL	-0.5329	0.0104	0.5984	-0.1020	NO—Accept Null
White	0.1847	0.0013	0.8548	0.0355	NO—Accept Null

Research question 4. Question 4 asks: What relationship exists, if any, between the level of implementation of the Reading First program (as measured by the RFII) and literacy achievement of students in kindergarten through Grade 3 (as measured by the RFAI)? A regression analysis was conducted to calculate linear regression and correlation. A *p* value of less than .05 is considered statistically significant. The correlation coefficients range from -1.00 to +1.00, with -1.00 representing a negative correlation and +1.00 representing a positive correlation. A value of 0 indicates that no correlation exists.



RFAI vs. RFII—Kindergarten through Grade 3

The y-intercept, the estimated value of RFAI when RFII is zero, is 16.8390 with a standard error of 10.6977.

The estimated slope is 0.7052 with a standard error of 0.2929.

Figure 19. Relationship between RFII and RFAI 2005–2009: Kindergarten through Grade 3. Linear regression scatterplot of the relationship between RFII and RFAI for students in kindergarten through Grade 3.

Table 46

Regression Analysis of RFII and RFAI Between 2005 and 2009

	T-Value	R-Squared	*p* Value	Correlation	Statistically Significant
RFAI vs. RFII	2.408	0.1768	0.0231	0.4205	YES—Reject Null

Summary of Findings

Schools that implemented Reading First strategies experienced greater growth in ELA student achievement for all students than schools that did not implement Reading First strategies. This is evidenced by two primary findings from the research. First, the means of percentage of students proficient and above on the ELA CST was calculated for Grades 2 through 5 in all schools in the Lancaster School District for each year between 2005 and 2009. Table 47 shows the difference between the mean scores in 2005 of all non-Reading First schools and all Reading First schools and their mean scores in 2009,

respectively. In addition, an ANOVA calculation using the percentage proficient and above for Grades 2 through 5 for all Reading First and non-Reading First schools resulted in a decision to reject the null hypothesis at each grade level.

Table 47

Comparison of Mean Percentage of Students Proficient and Above Between Non-Reading First Schools and Reading First Schools in 2005 and 2009

Mean Percentage Proficient and Above in 2005 and 2009						
	Non-Reading First Schools			Reading First Schools		
Grade	2005	2009	Difference	2005	2009	Difference
2	35.2	40	4.8	25	39.3	14.3
3	22	28.9	6.9	13.8	22.6	8.8
4	38.3	41.35	3.05	31	40.3	9.3
5	31.3	37.2	6.1	25	35.7	10.7

Implementation of the Reading First program is likely to impact positively ELA CST student achievement results for English language learners, African American, and Hispanic students in Grades 2 through 5, collectively. However, a comprehensive examination of ELA CST student achievement data by individual grade level and subgroup did not reveal any consistent patterns or trends that suggest that implementation of the Reading First program is particularly successful at any specific grade level or with any specific subgroup. Furthermore, the research did not find a statistically significant relationship between the implementation of the Reading First program and academic achievement of white students on the ELA CST at any of the grade levels studied, individually or collectively. The ANOVA calculation used to determine statistical significance of differences in second through fifth grade literacy performance of English language learners, Hispanic, African American, and white students on the ELA CST between Reading First and non-Reading First schools is reflected in Table 48.

Table 48

ANOVA Between Reading First and Non-Reading First Schools on 2005–2009 ELA CST for Significant Subgroups in Grades 2 Through 5

ANOVA for Significant Subgroups Based on 2005–2009 ELA CST Mean Scale Score Data					
	2	3	4	5	All Grades
English Language Learners	Accept	Reject	Accept	Accept	Reject
Hispanic	Accept	Reject	Reject	Reject	Reject
African American	Accept	Accept	Accept	Accept	Reject
White	Accept	Accept	Accept	Accept	Accept

The research found no correlation between the level of Reading First implementation and ELA CST student achievement based on RFII and CST data collected between 2005 and 2009. A regression analysis was completed for each grade level for all students and each significant subgroup (English language learners, Hispanic, African American, and white) to determine if there was a statistically significant relationship between the level of Reading First Implementation and student achievement on the ELA CST in Grades 2 through 5. When all calculations were completed, only Grade 2—all students, was found to be statistically significant; for all other grade levels and subgroups the *p* value was greater than .05, resulting in a decision to accept the null hypothesis (see Table 49).

Table 49

Summary of Regression Analysis of RFII and ELA CST Achievement for Grades 2 Through 5 Between 2005 and 2009

Regression Analysis for Significant Subgroups 2005-2009 RFII and ELA CST Achievement for Determining Statistical Significance in Grades 2 Through 5				
	2	3	4	5
All Students	YES	NO	NO	NO
African American	NO	NO	NO	NO
Hispanic	NO	NO	NO	NO

English Language Learners	NO	NO	NO	NO
White	NO	NO	NO	NO

The findings of the regression analysis that examined the relationship between the level of RFII and the RFAI in Lancaster School District revealed a statistically significant relationship. The data calculation revealed a *p* value of 0.0231, an r-squared value of 0.1768, and a correlation coefficient of 0.4205, suggesting that a positive correlation exists between the RFII and RFAI in Lancaster School District.

Chapter Five. Analysis, Conclusions and Recommendations

The purpose of this study was to compare and describe elementary student literacy performance in Lancaster School District in Grades 2 through 5 for six elementary schools implementing the Reading First Program and six elementary schools not implementing Reading First. Data was collected for the district's significant subgroups and closely examined to determine whether the Reading First Program has narrowed the achievement gap among African American students, Hispanic students, English language learners, and their white counterparts. The study also explored the relationship between the level of RFII and literacy achievement of students as measured by the ELA CST and the RFAI.

The study was guided by four questions:

1. How did second through fifth grade literacy performance on the CST at six Lancaster School District elementary schools that received Reading First grant resources and implemented the Reading First program, compare with the literacy performance at the other six elementary schools in the district that did not receive the same resources between 2005 and 2009?
2. How did second through fifth grade literacy performance of English language learners, Hispanic, African American, and white students on the CST at six Lancaster School District elementary schools that had received Reading First grant resources and implemented the Reading First program compare with the literacy performance of the same subgroups, respectively, at the other six elementary schools in the district that did not receive the same resources between 2005 and 2009?

3. What relationship exists, if any, between the level of implementation of the Reading First Program (as measured by the RFII) and literacy achievement of students in second through fifth grade (as measured by the CST) between 2005 and 2009?
4. What relationship exists, if any, between the level of implementation of the Reading First Program (as measured by the RFII) and literacy achievement of students in kindergarten through Grade 3 (as measured by the RFAI)?

The study was quantitative, used multiple methodologies, and was conducted in two phases. Phase 1, questions 1 and 2, utilized a comparative and descriptive approach using STAR CST data between 2005 and 2009. Phase 2, questions 3 and 4, was correlational in nature and examined the relationship between level of program implementation (RFII) and student achievement (CST and RFAI).

This chapter restates the summary of findings of the research and provides the researcher's analysis and interpretation of the findings. The analysis is followed by the researcher's conclusions based on the findings of the research and the information contained in the literature review. Subsequently, recommendations for further study are discussed. These recommendations could provide Lancaster School District additional information for further consideration in evaluating the effectiveness of implementation of the Reading First program and of the essential program components. Recommendations for policy and practice in Lancaster School District are then presented. The chapter concludes with a final summary of the study that will explore possible implications to school districts throughout the nation, as many continue to work to build a comprehensive and coherent literacy program.

Summary of Findings

Schools that implemented Reading First strategies experienced greater growth in ELA student achievement for all students than schools that did not implement Reading First strategies. This is evidenced by two primary findings from the research. First, the means of percentage of students proficient and above on the ELA CST was calculated for Grades 2 through 5 in all schools in the Lancaster School District for each year between 2005 and 2009. Table 50 shows the difference between the mean scores in 2005 of all non-Reading First schools and all Reading First schools and their mean scores in 2009, respectively. In addition, an ANOVA calculation using the percentage proficient and above for Grades 2 through 5 for all Reading First and non-Reading First schools resulted in a decision to reject the null hypothesis at each grade level.

Table 50

Comparison of Mean Percentage Proficient and Above Between Non-Reading First Schools and Reading First Schools in 2005 and 2009

Mean Percentage Proficient and Above in 2005 AND 2009						
	Non-Reading First Schools			Reading First Schools		
Grade	2005	2009	Difference	2005	2009	Difference
2	35.2	40	4.8	25	39.3	14.3
3	22	28.9	6.9	13.8	22.6	8.8
4	38.3	41.35	3.05	31	40.3	9.3
5	31.3	37.2	6.1	25	35.7	10.7

Implementation of the Reading First program is likely to impact positively ELA CST student achievement results for English language learners, African American, and Hispanic students in Grades 2 through 5, collectively. However, a comprehensive examination of ELA CST student achievement data by individual grade level and subgroup did not reveal any consistent patterns or trends that suggest that implementation

of the Reading First program is particularly successful at any specific grade level or with any specific subgroup. Furthermore, the research did not find a statistically significant relationship between the implementation of the Reading First program and academic achievement of white students on the ELA CST at any of the grade levels studied, individually or collectively. The ANOVA calculation used to determine statistical significance of differences in second through fifth grade literacy performance of English language learners, Hispanic, African American, and white students on the ELA CST between Reading First and non-Reading First schools is reflected in Table 51.

Table 51

ANOVA Between Reading First and Non-Reading First Schools on 2005-2009 ELA CST for Significant Subgroups in Grades 2 Through 5

ANOVA for Significant Subgroups Based ON 2005–2009 ELA CST Mean Scale Score Data Determining Statistical Significance in Grades 2 - 5					
	2	3	4	5	All Grades
English Language Learners	NO	YES	NO	NO	YES
Hispanic	NO	YES	YES	YES	YES
African American	NO	NO	NO	NO	YES
White	NO	NO	NO	NO	NO

The research did not show a positive correlation between the level of Reading First implementation and ELA CST student achievement based on RFII and CST data collected between 2005 and 2009. A regression analysis was completed for each grade level for all students and each significant subgroup (English language learners, Hispanic, African American, and white) to determine if there was a statistically significant relationship between the level of Reading First Implementation and student achievement on the ELA CST in Grades 2 through 5. When all calculations were completed, only Grade 2—all students, was found to be statistically significant; for all other grade levels

and subgroups the *p* value was greater than .05, resulting in a decision to accept the null hypothesis (Table 52).

Table 52

Summary of Regression Analysis of RFII and ELA CST Achievement for Grades 2 Through 5 Between 2005 and 2009

Regression Analysis for Significant Subgroups 2005–2009 RFII AND ELA CST Achievement for Determining Statistical Significance in Grades 2–5				
	2	3	4	5
All Students	YES	NO	NO	NO
African American	NO	NO	NO	NO
Hispanic	NO	NO	NO	NO
English Language Learners	NO	NO	NO	NO
White	NO	NO	NO	NO

The findings of the regression analysis that examined the relationship between the level of RFII and the RFAI in Lancaster School District revealed a statistically significant relationship. The data calculation revealed a *p* value of 0.0231 and a correlation coefficient of 0.4205, suggesting that a positive correlation exists between the RFII and RFAI in Lancaster School District.

Analysis of Findings

The analysis of findings is organized into four sections and is directly aligned to research questions 1 through 4, respectively. The sections are as follows: (a) Reading First program implementation and improving literacy achievement, (b) Reading First program implementation and closing the achievement gap, (c) correlation between level of RFII and CST student achievement, and (d) correlation between level of RFII and RFAI student achievement.

Reading First program implementation and improving literacy achievement. An analysis of the ELA CST percent proficient data for Grades 2 through 5 showed that the mean for Reading First schools between 2005 and 2009 grew more than the mean for non-Reading First schools at each grade level. Further comparison revealed that although in 2009, non-Reading First Schools continued to have a higher percentage of students proficient or above, the sizable gap that existed in 2005 between non-Reading First schools and Reading First schools had significantly narrowed, and, in fact, had almost been eliminated at some grade levels. The gap between non-Reading First schools and Reading First schools in second grade went from 10.2 percentage points difference in 2005 to .7 percentage points difference in 2009; third grade went from 8.2 percentage points difference in 2005 to 6.3 percentage points difference in 2009; fourth grade went from 7.3 percentage points difference in 2005 to 1.05 percentage points difference in 2009; and fifth grade went from 6.3 percentage points difference in 2005 to 1.5 percentage points difference in 2009. Additionally, the ANOVA calculation found a statistically significant difference in the data at all grade levels when comparing Reading First and non-Reading First schools.

These findings are consistent with the achievement trends identified in *The California Reading First Year 7 Evaluation Report* (Haager et al., 2009). The report, which focused on school districts in California, showed greater gains by Reading First schools in comparison to non-Reading First schools in the percentage of students in Grades 2 through 5 proficient and above on ELA CST between 2004 and 2009 (implementation period for the State of California). While the majority of supplemental resources, professional development, opportunities for collaborative discussions, and

coaching support acquired through the use of Reading First grant funds targeted teachers of kindergarten through third grade, it is probable that fourth and fifth grade teachers benefitted also. This may have positively influenced ELA CST outcomes for students in Grades 4 and 5.

The implementation of the Reading First program brought a strategic, focused approach to literacy instruction in the Lancaster School District (Reading First, CTAC, 2003) at participating schools. The assurances that the district and Reading First schools were asked to adhere to increased the emphasis on accountability and fidelity of implementation of the following, research-based, essential components:

1. Full implementation of a comprehensive language arts program, including development of pacing guides, common assessments, and designated time for core instruction and universal access (Foorman et al., 1997; National Reading Panel, 2000; Shaywitz, 2003; Snow et al., 1998).
2. Teacher collaboration and the effective use of data, including the use of curriculum-embedded formative assessments, valid screening and diagnostic tools to assess, monitor, and respond regularly to individual students' academic needs based on evidence (Ainsworth et al., 2007; Bernhardt, 2004; Black & William, 1998; Blankstein, 2004; Blink, 2007; Johnson, 2002; Popham, 2008; Reeves, 2000).
3. Comprehensive professional development in the effective use of the curriculum through AB466/SB472 or AB75/AB430 training provided essential support that resulted in the improved implementation of the Houghton Mifflin English-language arts program (CDE, 1997, 2006; Reading

First, CTAC, 2003; Sparks, 2002). The professional development also addressed differentiation strategies to improve instructional effectiveness with struggling students (Burris & Garrity, 2008; Johnson, 2002; Keyes et al., 2006; Ladson-Billings, 1994; Learning First Alliance, 1998, 2000).

4. Individual coaching support to maximize use of core and supplemental materials and to provide teacher support in using instructional strategies that assist ELL and other at-risk students (Becker, n.d.; Dozier, 2006; Fullan, 2007; Learning Point Associates, 2004; Leggett & Hoyle, 1987; Moats, 1999; Moran, 2007; Shanklin, 2007).

Reading First Program implementation and closing the achievement gap.

English language learners. The analysis of the ANOVA results for English language learners by grade level did not reveal a consistent pattern of statistical significance. When the data for all English language learners in Grades 2 through 5 were examined, there was a statistically significant difference between Reading First schools and non-Reading First schools.

Hispanic. The analysis of the ANOVA results for Hispanic students by grade level revealed a statistically significant difference for Grades 3, 4, 5, and all Hispanic students in Grades 2 through 5. The data for students in Grade 2 did not reflect a statistically significant difference between Reading First schools and non-Reading First schools.

African American. The analysis of the ANOVA results for African American students by grade level did not reveal a statistically significant difference in Grade 2, 3, 4, or 5. However, the data did reflect a statistically significant difference between Reading

First schools and non-Reading First schools when the ANOVA calculation was done for all African American students in Grades 2 through 5.

White. The analysis of the ANOVA results for white students by grade level did not reveal a statistically significant difference between Reading First schools and non-Reading First schools for any category, whether examined by individual grade levels or as a total group of students in Grades 2 through 5.

Interpretation of significant subgroup data analysis. When the data are examined, there is no compelling evidence that would clearly support the premise that implementation of the Reading First program had a positive and consistent statistically significant impact on improving student achievement for any of the individual subgroups included in this study (English language learners, Hispanic, African American, and white). However, the inconsistent results from the ANOVA calculations would suggest that schools that implement the Reading First program are more likely to experience increased student achievement results for English language learners, Hispanic, and African American students. Conversely, the ANOVA calculations for the white subgroup had consistent results for all grade levels. The analysis of student achievement data for white students in Grades 2 through 5 found no impact on learning outcomes as a result of Reading First program implementation at any grade level.

The Houghton Mifflin curriculum effectively supports targeted instruction in phonemic awareness, phonics, vocabulary development, reading fluency, and reading comprehension (Foorman et al., 1997; National Reading Panel, 2000; Shaywitz, 2003; Snow et al., 1998). The Reading First grant provided a funding source to purchase supplemental Houghton Mifflin resources specifically designed to support teachers in

differentiating instruction to meet more effectively the needs of struggling students (Burris & Garrity, 2008; Keyes et al., 2006; Reeves, 2000; Thompson, 2004). Until a recent change in the state framework, the adopted curriculum's differentiation materials primarily addressed meeting the needs of English language learners. Beginning with the 2008 textbook adoption, publisher's were required to provide differentiation materials that also target African American Vernacular English. Though supplemental materials are made available to teachers, this study did not measure the extent in which differentiation and/or intervention materials were used in the classroom. Additionally, English language development programs were implemented at some schools for English language learners that may have positively influenced student outcomes for English language learners.

The Reading First program put structures in place to provide leveled professional development and individual coaching support. It also allocated funding to ensure regularly scheduled collaboration time for all teachers in kindergarten through Grade 3. Though the framework is in place, effectiveness may be influenced by any number of factors (i.e., participation, willingness to share best practices, resistance to coaching, teacher mobility, or the lack or ineffective use of data).

Chapter 2 discussed common characteristics of high minority, high performing schools that successfully promote academic success. The researcher noted that access, culture-climate, expectations, and strategies were four critical areas identified as having the most impact in closing the achievement gap (California P-16 Council, 2008).

1. *Access*. Ensuring that all students have equitable access to appropriate core and intervention materials (Brandt, 2000; Lauder et al., 2006; Thernstrom & Thernstrom, 2003; Thompson, 2004).

2. *Culture-climate*. Establishing a positive and culturally responsive learning environment for all students (Johnson, 2002; Lindsey et al., 2003; Thompson, 2004).
3. *Expectations.* Clearly articulating high expectations for teaching and learning for all educators and students that promotes rigor at all levels of the system (Johnson, 2002; Reeves, 2000).
4. *Strategies.* Providing professional development, collaboration, and coaching that promotes, monitors, and evaluates the use of promising practices and effective instructional strategies that are student-centered and data-driven (Blankstein, 2004; DuFour & Eaker, 1998; Johnson, 2002; Marzano, 2003).

The researcher acknowledges the importance of each of these critical areas in closing the achievement gap; however, the Reading First program did not target improvement strategies in culture-climate or expectations. Considerations that may address these two areas are discussed in detail in recommendations for further study.

Researchers agree that closing the achievement gap will not be the result of addressing any one of these critical areas in isolation, but will require the efforts of educators focusing on all of the critical areas simultaneously (Blankstein, 2004; Johnson, 2002; Reeves, 2000; Thernstrom & Thernstrom, 2003; Thompson, 2004). This study did not reveal undeniably compelling evidence that Reading First implementation was effective in closing the achievement gap. The findings of the study do support that the essential components of the Reading First program and the structure and accountability provided through the assurances, positively influence learning outcomes for English language learners, African American, and Hispanic students.

Correlation between level of program implementation and CST student achievement. The regression analysis did not reveal a correlation between the level of RFII and ELA CST student achievement in Grades 3, 4, or 5. Grade 2 data did reflect a statistically significant correlation between the RFII and ELA CST student achievement. In Lancaster School District, the Reading First grant period was 2005 through 2009 and provided support and resources for teachers of kindergarten through Grade 3 students only. Although they may have benefitted directly, and/or indirectly, from Reading First implementation, teachers in Grades 4 and 5 typically did not have the same access to the professional development, coaching, and supplemental resources that K-3 teachers had.

Additionally, the STAR assessment is administered to all students in Grades 2 through 12. The CST data collected for the study was not disaggregated and limited to students who had participated in the Reading First Program. Table 53 shows the number of years students may have benefitted from the school-teacher's participation in the Reading First program in Lancaster School District between 2005 and 2009.

Table 53

Maximum Number of Years Students, Teachers, and Administrators May Have Benefitted From Reading First

Maximum Number of Years Students, Teachers, and Administrators May Have Benefitted From Reading First Program					
		Grade 2	Grade 3	Grade 4	Grade 5
Grant Year 1	2005	1	0	0	0
Grant Year 2	2006	2	2	0	0
Grant Year 3	2007	3	3	2	0
Grant Year 4	2008	3	4	3	2
Grant Year 5	2009	3	4	4	3

Multiyear professional development and supplemental resources were provided to teachers and administrators of Reading First schools throughout the grant period. Those teachers who received the first year of the 4-year leveled training in 2005, did not complete all of the training until 2008. Some teachers received less than 4 years of professional development as a result of a change in their assignments or they were hired after the beginning of the grant period (see Table 53). The researcher recognizes that it is probable that the number of years of participation that teachers and/or administrators may have benefitted from Reading First program implementation may influence the level of implementation. Receipt of adequate professional development to implement fully all components of the Houghton Mifflin curriculum and to use effectively formative assessment data to monitor student learning is an integral part of the Reading First program (CDE, 1997, 2006; King et al., 2006; Learning First Alliance, 1998, 2000; Reading First, CTAC, 2003; Sparks, 2002). Studies have found that students perform better in ELA when taught by teachers who have literature-based degrees and additional training in instructional strategies (NCES, 1994).

This study was limited to the implementation period in Lancaster School District, 2005 through 2009, and did not find a statistically significant correlation between RFII and ELA CST student achievement. Borman, Hewes, Overman, and Brown (2003) found that comprehensive school reform usually takes a minimum of 5 years before consistent improvement in student achievement is seen and is greatly influenced by district and state support and accountability.

Correlation between level of program implementation and RFAI student achievement. The regression analysis showed a positive correlation between the RFII

and the RFAI for Reading First schools in the Lancaster School District. Both of these index scores are grounded by the essential components of the Reading First program outlined in the Reading First assurances. The primary data source for the RFII is a survey administered to kindergarten through third grade teachers, coaches, and administrators at Reading First schools. The primary data sources for the RFAI are curriculum-embedded formative assessments for students in kindergarten through third grade and ELA CST data for second and third grade students. The researcher believes the RFII and the RFAI are both based on data collected from kindergarten through third grade administrators, teachers, coaches, or students and positively influence the correlational coefficient.

The professional development supports kindergarten through third grade teachers and administrators in the full implementation of the Houghton Mifflin curriculum. The assessments, used to monitor student progress of students in kindergarten through third grade, are curriculum-based. The alignment of curriculum, professional development, and coaching promote increased teacher effectiveness, resulting in improved student learning outcomes (Foorman et al., 1997; National Reading Panel, 2000; Shaywitz, 2003; Snow et al., 1998).

Conclusions and Discussion

There were four questions that guided this study. Based on the data analysis evidence from questions 1, 2, and 4, the researcher has drawn three conclusions. The data analysis for question 3 was inconclusive, but is discussed here as it may have implications related to recommendations for further study. The conclusions and relevant discussion in this section are organized and presented by research question.

Based on the findings for research question 1, the researcher concludes that schools that implemented the Reading First program produced a positive and statistically significant impact on literacy achievement of students in kindergarten through fifth grade. The findings suggested that, collectively, implementation of the essential components (comprehensive curriculum, teacher collaboration, targeted professional development, and coaching support) and adherence to the Reading First assurances promote development of a comprehensive approach to improving literacy instruction and student learning outcomes (Reading First, CTAC, 2003). This study did not examine the individual impact of each of the named essential components. Given the methodology of this study and the data collected, it would be difficult, if not impossible, to identify, with any degree of accuracy, the extent to which each of the essential components may have influenced achievement results.

Based on the findings for research question 2, the researcher concludes that the implementation of the Reading First program does promote increased student achievement for English language learners, African American, and Hispanic students (Haager et al., 2009). A thorough examination of the descriptive analysis data of ELA CST student achievement growth for Grades 2 through 5 between 2005 and 2009 identified positive trends that support this conclusion. However, there is no compelling evidence to conclude that there is a positive and statistically significant impact on closing the achievement gap among English language learners, African American, and Hispanic students and their white counterparts as a result of Reading First program implementation.

Question 3 explored the correlational relationship between program implementation and ELA CST student achievement. The data calculations revealed that the level of Reading First implementation had no statistically significant impact on ELA CST student achievement results for Grades 2 through 5 between 2005 and 2009 in the Lancaster School District. This research question may be inherently difficult to study, as researchers suggest a minimum 5-year implementation period before comprehensive school reform practices become systemic and may be credited with consistent improvement in student achievement (Borman et al., 2003). Because this study examined implementation of the Reading First program between 2005 and 2009, the researcher suggests these findings are inconclusive in determining if a correlational relationship exists between Reading First program implementation and ELA CST achievement.

Furthermore, in examining the reliability of the findings for question 3, another important consideration is that the Reading First program targeted strategies to improve teaching and learning in kindergarten through Grade 3, and the ELA CST addresses student achievement in Grades 2 through 5. The ELA CST mean scale score and the RFII are both reliable and valid independent data sources, but may not prove to be good correlational measures to determine the impact of program implementation on student achievement. Though the Reading First program has closed, this may be an area of consideration for future study, as researchers and educators examine sustainability of the essential components of Reading First and their potential impact on ELA CST student achievement in Grades 2 through 5.

Based on the findings for research question 4 of this study, the researcher concludes that it is very likely that schools that fully implement a comprehensive literacy

program, with fidelity, will have greater student literacy achievement outcomes. This conclusion is based on compelling evidence of a positive correlational relationship between the RFII and the RFAI in the Lancaster School District. The Reading First program was designed to provide curriculum resources, professional development, and targeted teacher support to improve instruction of teachers in kindergarten through Grade 3. The RFII and RFAI indices are based on kindergarten through Grade 3 data. There is reason to believe the alignment between grade levels targeted in program implementation and grade levels targeted for student achievement data collection were important congruency factors that positively influenced the correlational report of findings.

The conclusion for question 4 is also supported by the fact that the Reading First assurances promoted strong alignment of the adopted standards-based curriculum, Houghton Mifflin, professional development that promoted full implementation of the program and effective instructional strategies, and curriculum-embedded assessments and diagnostics. Research indicates that standards-based curriculum and assessment alignment is becoming increasingly more important to improve student learning outcomes (Ainsworth et al., 2007; Blink, 2007; Popham, 2008; Reeves, 2000). It is probable that the emphasis on program cohesiveness had a positive influence on the correlational findings between the RFII and the RFAI.

Recommendations for Further Study

The findings from this study support implementation of a comprehensive core literacy program to improve student achievement for all students. To further evaluate the impact of the essential components identified in this study, and of research-based strategies effective in closing the achievement gap, the researcher recommends that the

following four qualitative studies, one mixed study, and one quantitative study be considered:

1. An examination of the relationship between teacher preparedness (undergraduate and graduate degrees, teaching credential and supplementary authorizations, or any specialist certifications) and student achievement in the Lancaster School District.
2. An examination of the relationship between data-driven, student-centered professional learning communities and student achievement in the Lancaster School District.
3. A study of teachers and administrators to examine the perceived value of content specific professional development, instructional coaching support, collaboration, and use of a comprehensive curriculum and their impact on improving student achievement in the Lancaster School District.
4. A study to examine the use of culturally responsive teaching and learning strategies and the perceived impact on student learning in the Lancaster School District.
5. A 10-year longitudinal mixed study to examine sustainability of essential components of the Reading First program (curriculum, professional development, coaching, and collaboration) and their impact on ELA CST student achievement.
6. A quantitative study to compare and describe the similarities and differences between the CST and the curriculum-embedded assessments used in the

calculation of the RFAI. Additionally, an examination of the alignment of curriculum-embedded assessments to the CST.

Recommendations for Policy and Practice

This study was designed to obtain information on the effectiveness of implementation of the Reading First program. The study was conducted in one district in California and examined implementation and student achievement in six schools that participated in the Reading First program and six schools that had not participated in the program. The findings of the study may have direct implications on practices and policies in the Lancaster School District. Moreover, given that numerous districts throughout the state of California, and nationwide, are faced with similar challenges in developing comprehensive literacy programs that effectively meet the needs of all students, this study may have far-reaching implications on educational policies and practices.

1. Districts should continue to work on developing a comprehensive, district-wide literacy program for all elementary schools that is rigorous, engaging, and relevant for all students. A focus on strengthening the core literacy program and building district coherence that clearly outlines expectations and instructional norms promotes equitable access and high expectations for all students (Bumgardner, 2010; Haycock, 2001; Marzano, 2003; Reeves, 2000; Schmoker, 1999).
2. Comprehensive professional development opportunities should be designed to include teachers and administrators, enabling administrators to improve administrative oversight and accountability of program implementation. Professional development opportunities should place an emphasis on the use

of effective instructional strategies for English language learners and African American students and incorporation of culturally responsive teaching and learning strategies (Burris & Garrity, 2008; Johnson, 2002; Keyes et al., 2006; Ladson-Billings, 1994; Learning First Alliance, 1998, 2000).

3. Districts should continue to provide teachers dedicated time for collaboration to ensure consistency and promote data-driven PLCs that are student-centered. Districts should also continue to refine standards-based common formative assessments that are curriculum-embedded, aligned, and similarly weighted to CST blueprints in an effort to monitor effectively student achievement (DuFour et al., 2005; DuFour et al., 2004; Elmore, 2000; Fullan 1993; Reeves, 2000; Wahlstrom, 2002)
4. Districts should maintain an emphasis on building capacity of district and site administrators and teacher leaders to promote long-term sustainability of literacy reform initiatives. An unrelenting focus on monitoring and improving student learning through the effective use of data should be evident at all levels of the system (DuFour et al., 2004; Duke & Canady, 1991; Dwyer, 1986; Marzano et al., 2005; Murphy & Hallinger, 1989).

Final Summary

Rapidly changing student demographics in the state of California continue to challenge educators and their responsiveness is critical to meet the needs of all students. Research of promising practices suggests that ensuring equitable access to comprehensive curriculum and appropriate interventions, establishing positive learning environments, maintaining high expectations for all students, and implementing effective instructional

strategies promote higher levels of academic success in high poverty, high minority schools (Keyes et al., 2006; Singleton & Linton, 2006; Tatum, 2009). While an emphasis on access, culture-climate, expectations, and strategies successfully promotes closing the achievement gap for some schools, consistency of monitoring and accountability also play an integral role in improving achievement outcomes for all students.

Furthermore, the leadership responsibilities of district and site administrators have never been more important. As more attention has been brought to the leadership responsibilities of district and site administrators, as well as teacher leaders, we now better understand how critical the leadership role is in establishing comprehensive literacy programs that positively impact student learning outcomes for all students. Leaders shape the culture and climate, articulate the vision, and model high expectations for teaching and learning. Building capacity of administrators and teachers to lead reform initiatives, monitor and evaluate program implementation, and continue to meet state and federal accountability requirements, only partially describe the work that is needed of educators in the 21st century.

Our global society has influenced how students learn, acquire and process new information, and procure skills they need to be productive citizens. Instructional strategies, resources, curriculum, and assessment methods must adapt to meet societal priorities and learning standards of the 21st century. Ensuring that students have the ability to compete in a global economy has been recognized by both federal and state educators and politicians, though this recognition has not resulted in dramatic changes in how students are educated in the classroom.

Ineffectiveness in closing the achievement gap, coupled with a slow response in preparing students with 21st century learning skills, is perpetuating a growing divide between groups of individuals predicated on ethnicity, class, or socioeconomic status. Literacy achievement is an important equalizer recognized as having the potential to close the chasms that exist among minority and lower socioeconomic students and their white counterparts. It is a moral imperative for the district, the state, and the nation, and is integral to ensuring equitable access to higher education and better job opportunities for all students.

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APPENDIX A

California High School and College Success

California High School and College Success

In earlier times, young people with weak reading and math skills could still find good jobs if they were willing to work hard. Now a high school diploma is the bare minimum for young people. Most will also want at least some postsecondary education or training in order to succeed in today's marketplace.

Student Demographics, 2005

Population and enrollments: These data offer a picture of the student population in this state. Comparing the demographic distribution of students across each educational level shows what happens to children as they journey through the education system. Significant differences should raise questions about equity.

	Population, age 5-24*	Public K-12	Two-Year Colleges	Four-Year Colleges
African American	6%	8%	8%	6%
Asian	8%	11%	16%	20%
Latino	33%	48%	26%	19%
Native American	1%	1%	1%	1%
White	28%	32%	38%	38%
Other	23%	N/A	11%	16%
Number	12,828,673	6,213,073	2,223,479	796,527

* Census 2000, Most recent data.

Participation and Success in Advanced Placement, 2005

Composition of AP test takers: Students take Advanced Placement (AP) exams after completing year-long AP courses, typically among the highest level offered in high schools. In a system where all students have equal access to these opportunities, the percentage of test-takers by race and ethnicity would be proportional to their representation in public K-12 enrollment.

Who Takes AP Tests?

Example: *Of all AP test takers, this proportion were African Americans.*

	Public K-12 Enrollment	Calculus AB	English Language and Composition	Biology
African American	8%	3%	4%	3%
Asian	11%	39%	26%	42%
Latino	48%	16%	24%	16%
Native American	1%	0%	0%	0%
White	32%	41%	46%	39%
Number	6,213,073	27,021	37,121	19,751

Success rates of AP test takers: While AP test taking offers a picture of access to AP coursework, relative achievement on these exams is an important measure of student/teacher preparedness. Huge variability in the proportion of test takers that earn a 3 or greater should raise questions about the quality of instruction or educational resources provided in courses labeled Advanced Placement.

Who Scores a 3,4, or 5?

Example: *Of all African Americans who took the AP Calculus exam, this percent scored a 3, 4 or 5.*

	Calculus AB	English Language and Composition	Biology
African American	35%	28%	35%
Asian	63%	53%	65%
Latino	35%	26%	30%
Native American	58%	47%	52%
White	69%	66%	69%
Overall	60%	51%	60%

The Education Trust, Inc. (2006). *Achievement, Attainment, and Opportunity from Elementary Through College*, p. 8. Retrieved from http://www2.edtrust.org/edtrust/summaries2006/California.pdf

APPENDIX B

Employed Persons by Occupation, Sex, Race, and Ethnicity

Table 4. **Employed persons by occupation, sex, race, and Hispanic or Latino ethnicity, 2007 annual averages**

Occupation	Total	White	Black or African American	Asian	Hispanic or Latino ethnicity
Total, 16 years and over (thousands)	146,047	119,792	16,051	6,839	20,382
Percent	100.0	100.0	100.0	100.0	100.0
Management, professional, and related occupations	35.5	36.1	27.1	48.1	17.8
Management, business, and financial operations	14.8	15.5	10.1	15.8	7.7
Management occupations	10.6	11.3	6.1	10.1	5.6
Business and financial operations occupations	4.2	4.1	4.0	5.7	2.2
Professional and related occupations	20.7	20.6	16.9	32.4	10.0
Computer and mathematical occupations	2.4	2.1	1.5	9.0	0.9
Architecture and engineering occupations	2.0	2.0	1.0	4.2	0.9
Life, physical, and social science occupations	0.9	0.9	0.5	2.6	0.3
Community and social services occupations	1.6	1.4	2.6	1.1	1.1
Legal occupations	1.1	1.2	0.7	0.7	0.5
Education, training, and library occupations	5.8	6.0	5.1	4.6	3.2
Arts, design, entertainment, sports, and media occupations	1.9	2.0	1.0	1.6	1.2
Healthcare practitioner and technical occupations	5.0	4.8	4.6	8.7	2.0
Service occupations	16.5	15.5	23.3	16.0	24.1
Healthcare support occupations	2.1	1.8	4.7	1.8	2.2
Protective service occupations	2.1	2.0	3.6	1.0	1.5
Food preparation and serving related occupations	5.3	5.1	5.5	6.2	8.0
Building and grounds cleaning and maintenance occupations	3.7	3.6	5.2	2.2	9.2
Personal care and service occupations	3.3	3.0	4.2	4.8	3.2
Sales and office occupations	24.8	24.8	26.2	21.9	21.1
Sales and related occupations	11.4	11.6	10.3	11.4	9.3
Office and administrative support occupations	13.4	13.2	15.8	10.5	11.8
Natural resources, construction, and maintenance occupations	10.8	11.6	7.0	4.4	19.4
Farming, fishing, and forestry occupations	0.7	0.7	0.3	0.2	1.9
Construction and extraction occupations	6.5	7.1	4.0	1.7	14.0
Installation, maintenance, and repair occupations	3.6	3.8	2.7	2.4	3.6
Production, transportation, and material moving occupations	12.4	12.0	16.5	9.6	17.6
Production occupations	6.4	6.3	7.4	6.5	9.4
Transportation and material moving occupations	6.0	5.7	9.2	3.0	8.2

See note at end of table.

U.S. Bureau of Labor Statistics 2007

APPENDIX B (continued)

Table 4. **Employed persons by occupation, sex, race, and Hispanic or Latino ethnicity, 2007 annual averages—Continued**

Occupation	Total	White	Black or African American	Asian	Hispanic or Latino ethnicity
Men, 16 years and over (thousands)	78,254	65,289	7,500	3,677	12,310
Percent	100.0	100.0	100.0	100.0	100.0
Management, professional, and related occupations	32.7	33.2	22.3	49.3	14.3
Management, business, and financial operations	15.8	16.7	9.2	15.8	7.2
Management occupations	12.4	13.2	6.3	11.4	5.7
Business and financial operations occupations	3.4	3.5	2.9	4.4	1.5
Professional and related occupations	16.9	16.5	13.1	33.5	7.1
Computer and mathematical occupations	3.3	2.9	2.1	12.5	1.1
Architecture and engineering occupations	3.2	3.3	1.6	6.2	1.3
Life, physical, and social science occupations	1.0	1.0	0.5	2.9	0.3
Community and social services occupations	1.1	1.1	2.0	0.8	0.6
Legal occupations	1.0	1.1	0.5	0.4	0.3
Education, training, and library occupations	2.9	2.9	2.8	3.6	1.3
Arts, design, entertainment, sports, and media occupations	1.9	2.0	1.2	1.6	1.2
Healthcare practitioner and technical occupations	2.4	2.3	2.3	5.6	1.0
Service occupations	13.2	12.4	19.2	13.5	19.7
Healthcare support occupations	0.4	0.3	1.0	0.8	0.4
Protective service occupations	3.0	2.9	5.0	1.4	2.0
Food preparation and serving related occupations	4.3	4.0	5.2	6.5	7.6
Building and grounds cleaning and maintenance occupations	4.2	4.0	6.0	2.6	8.7
Personal care and service occupations	1.3	1.1	2.0	2.2	1.0
Sales and office occupations	16.9	16.7	18.7	18.4	13.2
Sales and related occupations	10.8	11.0	8.8	11.5	7.2
Office and administrative support occupations	6.2	5.7	10.0	6.9	6.0
Natural resources, construction, and maintenance occupations	19.3	20.4	14.0	7.4	31.0
Farming, fishing, and forestry occupations	1.0	1.1	0.4	0.2	2.5
Construction and extraction occupations	11.9	12.7	8.1	3.1	22.8
Installation, maintenance, and repair occupations	6.4	6.7	5.5	4.1	5.7
Production, transportation, and material moving occupations	17.9	17.3	25.7	11.4	21.7
Production occupations	8.4	8.4	9.6	6.7	10.4
Transportation and material moving occupations	9.5	9.0	16.1	4.7	11.3

See note at end of table.

APPENDIX B (continued)

Table 4. **Employed persons by occupation, sex, race, and Hispanic or Latino ethnicity, 2007 annual averages—Continued**

Occupation	Total	White	Black or African American	Asian	Hispanic or Latino ethnicity
Women, 16 years and over (thousands)	67,792	54,503	8,551	3,162	8,072
Percent	100.0	100.0	100.0	100.0	100.0
Management, professional, and related occupations	38.6	39.5	31.2	46.8	23.1
Management, business, and financial operations	13.6	13.9	11.0	15.7	8.6
Management occupations	8.6	9.0	6.0	8.5	5.4
Business and financial operations occupations	5.0	4.9	5.0	7.2	3.2
Professional and related occupations	25.1	25.6	20.3	31.1	14.5
Computer and mathematical occupations	1.3	1.1	1.0	4.9	0.5
Architecture and engineering occupations	0.6	0.6	0.4	1.8	0.3
Life, physical, and social science occupations	0.9	0.8	0.5	2.3	0.3
Community and social services occupations	2.0	1.9	3.1	1.4	1.8
Legal occupations	1.3	1.4	0.8	1.0	0.8
Education, training, and library occupations	9.2	9.8	7.0	5.7	6.1
Arts, design, entertainment, sports, and media occupations	1.9	2.1	0.8	1.6	1.2
Healthcare practitioner and technical occupations	7.9	7.9	6.6	12.4	3.5
Service occupations	20.4	19.3	26.8	18.9	30.7
Healthcare support occupations	4.1	3.6	7.9	2.9	4.8
Protective service occupations	1.0	0.8	2.4	0.5	0.8
Food preparation and serving related occupations	6.4	6.5	5.8	5.9	8.6
Building and grounds cleaning and maintenance occupations	3.2	3.1	4.5	1.9	10.0
Personal care and service occupations	5.6	5.3	6.2	7.8	6.5
Sales and office occupations	33.8	34.4	32.7	26.0	33.1
Sales and related occupations	12.2	12.3	11.7	11.4	12.4
Office and administrative support occupations	21.6	22.1	21.0	14.7	20.7
Natural resources, construction, and maintenance occupations	1.0	1.0	0.8	0.9	1.8
Farming, fishing, and forestry occupations	0.3	0.3	0.2	0.3	1.0
Construction and extraction occupations	0.4	0.4	0.3	0.1	0.6
Installation, maintenance, and repair occupations	0.3	0.3	0.3	0.5	0.2
Production, transportation, and material moving occupations	6.2	5.7	8.5	7.4	11.3
Production occupations	4.2	3.9	5.4	6.3	8.0
Transportation and material moving occupations	2.0	1.9	3.1	1.0	3.3

NOTE: Estimates for the above race groups (White, Black or African American, and Asian) do not sum to totals because data are not presented for all races. Persons whose ethnicity is identified as Hispanic or Latino may be of any race.

U.S. Bureau of Labor Statistics 2007

APPENDIX C

1998-2009 Reading Achievement Gaps in California

Average scale scores for reading, Grade 4, by year, jurisdiction, and Race/ethnicity (from school records) [SDRACE]: 1998, 2002, 2003, 2005, 2007, and 2009

Year	Jurisdiction	White		Black		Hispanic	
		Average scale score	Standard error	Average scale score	Standard error	Average scale score	Standard error
2009	California	227	(2.0)	200	(3.3)	196	(1.2)
2007	California	227	(1.2)	200	(2.4)	195	(0.9)
2005	California	225	(1.2)	195	(1.4)	193	(0.8)
2003	California	224	(1.7)	193	(3.1)	191	(1.3)
2002	California	223	(2.2)	196	(3.2)	192	(3.3)
1998	California	217	(2.4)	186	(4.0)	181	(4.0)

† Not applicable.
‡ Reporting standards not met.
NOTE: Black includes African American, Hispanic includes Latino, Pacific Islander includes Native Hawaiian, and American Indian includes Alaska Native. Race categories exclude Hispanic origin unless specified. The NAEP Reading scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.

Average scale scores for reading, Grade 4, by year, jurisdiction, and Natl School Lunch Prog eligibility (3 categories) [SLUNCH3]: 1998, 2000, 2002, 2003, 2005, 2007, and 2009

Year	Jurisdiction	Eligible		Not eligible		Info not available	
		Average scale score	Standard error	Average scale score	Standard error	Average scale score	Standard error
2009	California	196	(1.3)	226	(2.0)	207	(11.8)
2007	California	195	(1.1)	225	(1.0)	206	(7.7)
2005	California	193	(0.7)	224	(0.8)	214	(7.8)
2003	California	191	(1.4)	222	(1.5)	203	(4.6)
2002	California	190	(3.3)	225	(2.1)	208	(4.9)
2000	California	—	(†)	—	(†)	—	(†)
2000[1]	California	—	(†)	—	(†)	—	(†)
1998	California	182	(3.3)	218	(2.7)	219	(7.3)

— Not available.
† Not applicable.
[1] Accommodations were not permitted for this assessment.
NOTE: The NAEP Reading scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.

National Center of Education Statistics 2007 NAEP State Comparisons
Retrieved from http://nces.ed.gov/nationsreportcard/statecomparisons/

APPENDIX D

1998 and 2009 NAEP Grade 4 Reading Achievement State Comparison

1998 and 2009 NAEP State Comparison
Grade 4 Average Reading Scale Score

Jurisdiction	African American		Hispanic		Higher Income		Lower Income	
	1998	2009	1998	2009	1998	2009	1998	2009
National Public	192	204	192	204	226	232	195	206
Alabama	191	201		200	226	231	196	204
Arizona	191	206	188	198	221	225	189	197
Arkansas	184	199		202	221	230	196	207
California	**186**	**200**	**181**	**196**	**218**	**226**	**182**	**196**
Colorado	197	213	201	204	227	238	202	206
Connecticut	203	209	196	205	238	238	203	207
Delaware	189	213	176	216	219	234	189	214
Florida	186	211	198	223	220	236	190	217
Georgia	191	204		208	224	231	192	207
Hawaii	203	204	197	215	212	221	185	198
Louisiana	180	196		206	221	222	189	201
Massachusetts	202	216	194	211	230	243	203	215
Michigan	187	194	201	206	225	229	200	204
Minnesota	184	195		194	228	233	198	203
Nevada	183	201	189	199	214	220	189	200
New Hampshire		216		217	230	234	211	213
New Mexico	196	205	195	201	223	225	193	199
New York	191	209	188	210	231	235	196	214
North Carolina	193	204		204	224	233	198	205
Oklahoma	195	197	204	207	239	229	208	207
Oregon	191	202	178	196	223	231	192	204
Rhode Island	192	207	177	200	230	235	195	205
South Carolina	192	200		205	223	230	194	204
Tennessee	193	197		202	224	228	198	205
Texas	191	213	200	210	230	232	199	209
Virginia	199	210	207	214	226	235	198	210
Washington	204	209	200	201	226	233	203	208
West Virginia	194	204			227	226	205	206
Wisconsin	187	192	201	202	230	231	203	202

National Center of Education Statistics 2009 NAEP State Comparisons
Retrieved from http://nces.ed.gov/nationsreportcard/statecomparisons/

APPENDIX E

Key Characteristics of First-Order and Second Order Changes

First-order Change	Second-order Change
Continuation of past practices	Willingness to try new ideas and strategies
Culture bound	Unbounded
Consistent with prevailing values and norms	Conflicting with prevailing values and norms
Focused on problem solving	Focused on continuous improvement
Incremental change	Complex change
Linear process	Nonlinear process based on regular monitoring and ongoing evaluation and purposeful modifications
Implemented with existing knowledge and skills	Requires new knowledge and skills to implement
Reliant on expertise of individuals	Collaborative process that seeks to maximize expertise of all stakeholders

Adapted from Marzano, R., Waters, T., & McNulty, B., *School Leadership That Works,* (2005).

APPENDIX F

Local Education Agency (LEA) Level Reading First Assurances

Required

We, the superintendent and members of the Board of Education, agree to:

Establish a well-defined district vision with goals and objectives for student achievement (including the belief that all students can read at grade level if adequately taught).

Require, in Year 1, or the first year the teachers work at a Reading First school site, participation of all teachers (K-3 and K-12 special education) in a State approved AB 466 program (with LEA responsible for 80 hours of practicum).

Require, in Year 1, or the first year the principals work at a Reading First school site, participation of all principals (K-3 elementary schools) in State approved AB 75 Module 1 curriculum.

Require in Years 2 and 3, all teachers participate in a comparable AB 466 professional development program for advancement of skills in use of adopted program and instructional strategies.

Provide, with technical assistance from state and regional centers, ongoing training/follow-up sessions for K-3 teachers and special education teachers; including the alternative Spanish version (if selected).

Assure the adopted reading/language arts program will be fully implemented and the daily instructional time will be protected from disruptions for a minimum of 2.5 hours for Grades 1-3, and 1 hour for Kindergarten, though use of a pacing schedule.

Use and support only supplemental materials, technology programs, or staff development programs that support the scientific research-based, adopted reading/language arts instructional program.

Develop and implement assessment plan for all Reading First schools based o valid and reliable instructional assessments from the recommended list, which includes a frequently used program monitoring assessment based on the instructional program.

Assure that all school sites will support regular, collaborative, grade-level teacher meetings to discuss use of the instructional program, student results on the selected assessments, and will receive additional training.

APPENDIX F (continued)

Develop and conduct an internal evaluation on the effectiveness of its Reading First Program. Make regular site visits to monitor the level of implementation of the adopted reading instructional program and adherence to the purposes of its Reading First Program.

Assure the Curriculum and Instruction administrators and Title I administrators reinforce established district policy guiding the consistent implementation of the adopted instructional reading program, including instructional time, use of scientific research-based instructional strategies, and use of selected assessments.

Assure the LEA's Reading First Program is coordinated with all other district and site level Language Acquisition, Title I, School Improvement, and Special Education programs.

Assure the LEA's district-wide Reading First Leadership Team meets regularly to advise and support the implementation of its Reading First Program.

Assure that private schools have been contacted regarding the LEA's Reading First Program, and if appropriate, services will be coordinated in compliance with Section 9501 of the No Child Left Behind Act.

Optional

Use funding to hire reading coaches (1:30 teachers) and/or content experts (1:15 coaches).

Assign an appropriate administrative credentialed staff member (with school administration experience and reading/language arts knowledge) to serve as the Coach Coordinator (this is optional if the district's plan does not includes coaches, this position is required).

Provide coaches sufficient professional development and support for increasing knowledge and experience.

Support full access of coaches in all classrooms (if this option is taken).

California Technical Assistance Center at the Sacramento County Office of Education, October 2003, Revised January 2006.

APPENDIX G

School Level Reading First Assurances

Required

The principal and vice principal, as instructional leaders, agree to:

Establish a well-defined school vision (supporting district vision) with goals and objectives for student achievement (including the belief that all students can read at grade level if adequately taught).

Support full implementation of the district's State adopted reading/language arts instructional program and protect the daily instructional time from disruptions for a minimum of 2.5 hours for Grades 1-3, 2.5 hours and 1 hour for Kindergarten, through the use of a pacing schedule.

Require that all teachers (K-3 and offer to K-12 special education) participate in Year 1, or in the first year the teachers work at a Reading First school site, the State Board approved AB 466 program (with LEA responsible for 80 hours of practicum).

Require in Years 2 and 3, all teachers participate in a comparable AB 466 professional development program for advancement of skills in use of adopted program and instructional strategies.

Be involved in, and knowledgeable of, the instructional delivery of the program.

Organize and support regular, collaborative, grade level teacher meetings to discuss use of the instructional program and student results on the selected assessments, and to develop action plans for student interventions and/or additional teacher training.

Guide the monitoring of student progress based on the instructional program assessment and others approved by the district; and use the results to make program decisions for the purpose of maximizing student achievement.

Attend, I Year 1, or the first year he principal works at a Reading First school site, the AB 75 Principal Training Program for Module 1 based on the district's State adopted reading/language arts instructional program.

Insist on and ensure the full implementation of the adopted reading/language arts program for K-3 teachers.

Ensure that any supplemental materials, technology programs, or staff development programs will be in alignment with the scientific research based, adopted program.

APPENDIX G (continued)

Assure that the school's Reading First Program is coordinated with staff and advisory committees responsible for Language Acquisition, Title I, School Improvement, and Special Education programs.

Optional

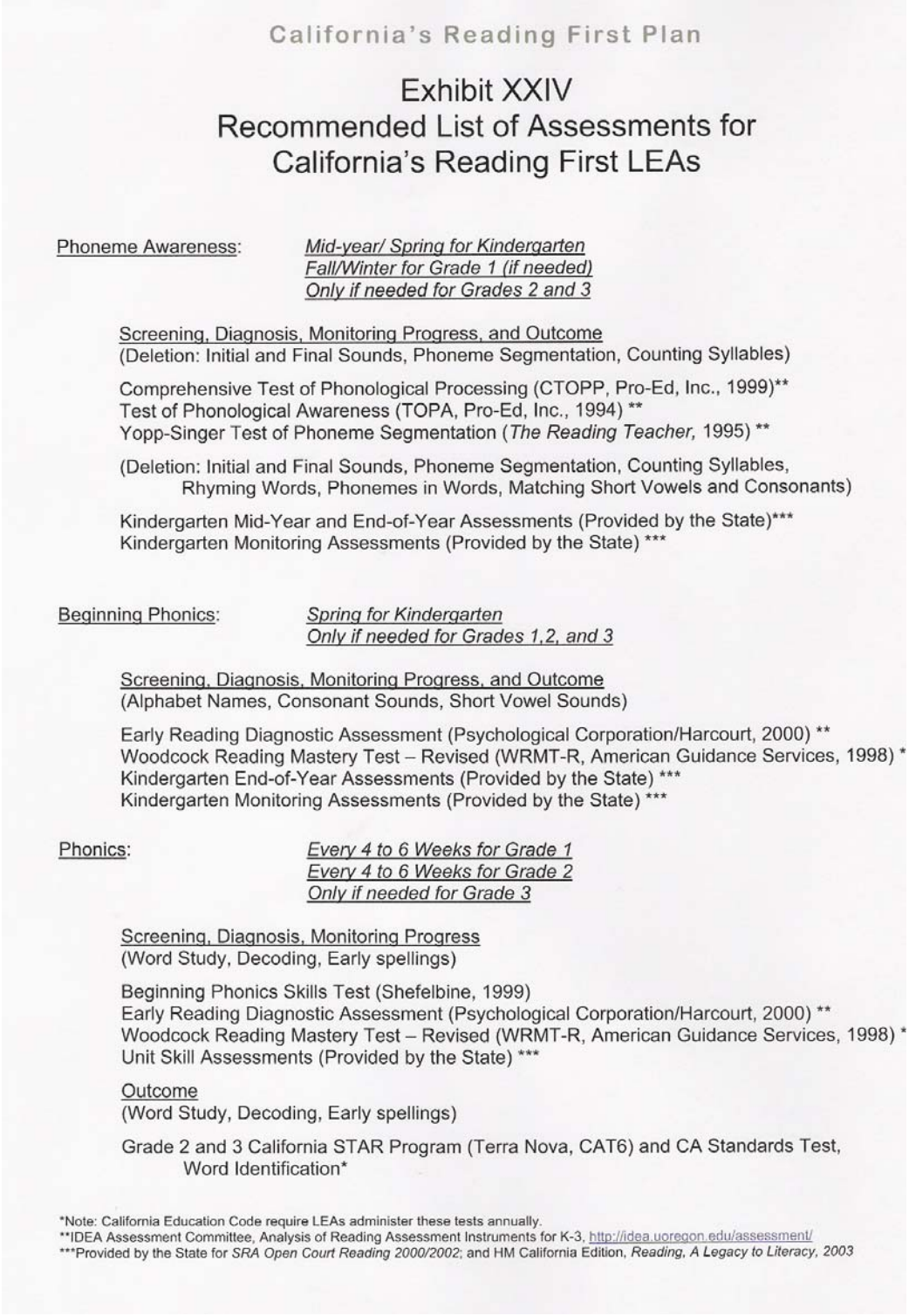
Assure that coaches are adequately prepared to serve as a peer coach to teachers implementing the adopted reading/language arts program.

Hold regular meetings with the reading coach; and conduct classroom observations with coach on a regular basis.

California Technical Assistance Center at the Sacramento County Office of Education, October 2003, Revised January 2006.

APPENDIX H

Recommended List of Assessments for California's Reading First LEAs



California's Reading First Plan

Exhibit XXIV
Recommended List of Assessments for
California's Reading First LEAs

Phoneme Awareness: *Mid-year/ Spring for Kindergarten*
Fall/Winter for Grade 1 (if needed)
Only if needed for Grades 2 and 3

Screening, Diagnosis, Monitoring Progress, and Outcome
(Deletion: Initial and Final Sounds, Phoneme Segmentation, Counting Syllables)

Comprehensive Test of Phonological Processing (CTOPP, Pro-Ed, Inc., 1999)**
Test of Phonological Awareness (TOPA, Pro-Ed, Inc., 1994) **
Yopp-Singer Test of Phoneme Segmentation (*The Reading Teacher,* 1995) **

(Deletion: Initial and Final Sounds, Phoneme Segmentation, Counting Syllables, Rhyming Words, Phonemes in Words, Matching Short Vowels and Consonants)

Kindergarten Mid-Year and End-of-Year Assessments (Provided by the State)***
Kindergarten Monitoring Assessments (Provided by the State) ***

Beginning Phonics: *Spring for Kindergarten*
Only if needed for Grades 1,2, and 3

Screening, Diagnosis, Monitoring Progress, and Outcome
(Alphabet Names, Consonant Sounds, Short Vowel Sounds)

Early Reading Diagnostic Assessment (Psychological Corporation/Harcourt, 2000) **
Woodcock Reading Mastery Test – Revised (WRMT-R, American Guidance Services, 1998) *
Kindergarten End-of-Year Assessments (Provided by the State) ***
Kindergarten Monitoring Assessments (Provided by the State) ***

Phonics: *Every 4 to 6 Weeks for Grade 1*
Every 4 to 6 Weeks for Grade 2
Only if needed for Grade 3

Screening, Diagnosis, Monitoring Progress
(Word Study, Decoding, Early spellings)

Beginning Phonics Skills Test (Shefelbine, 1999)
Early Reading Diagnostic Assessment (Psychological Corporation/Harcourt, 2000) **
Woodcock Reading Mastery Test – Revised (WRMT-R, American Guidance Services, 1998) *
Unit Skill Assessments (Provided by the State) ***

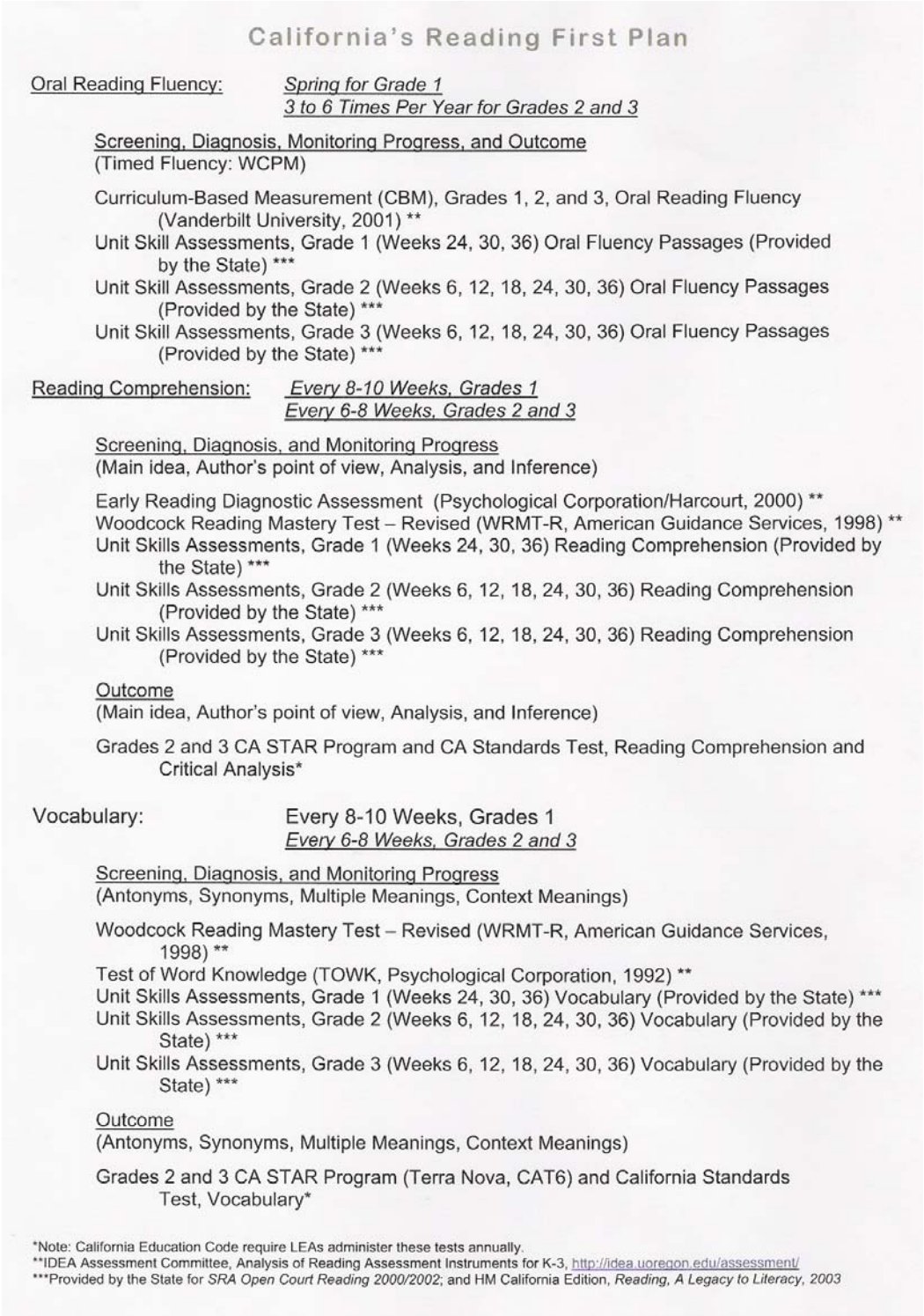
Outcome
(Word Study, Decoding, Early spellings)

Grade 2 and 3 California STAR Program (Terra Nova, CAT6) and CA Standards Test, Word Identification*

*Note: California Education Code require LEAs administer these tests annually.
**IDEA Assessment Committee, Analysis of Reading Assessment Instruments for K-3, http://idea.uoregon.edu/assessment/
***Provided by the State for *SRA Open Court Reading 2000/2002*; and HM California Edition, *Reading, A Legacy to Literacy, 2003*

California's Reading First Plan as approved by the United States Department of Education August 23, 2002. CDE, 2002.

APPENDIX H (continued)



California's Reading First Plan

Oral Reading Fluency: *Spring for Grade 1*
3 to 6 Times Per Year for Grades 2 and 3

Screening, Diagnosis, Monitoring Progress, and Outcome
(Timed Fluency: WCPM)

Curriculum-Based Measurement (CBM), Grades 1, 2, and 3, Oral Reading Fluency (Vanderbilt University, 2001) **
Unit Skill Assessments, Grade 1 (Weeks 24, 30, 36) Oral Fluency Passages (Provided by the State) ***
Unit Skill Assessments, Grade 2 (Weeks 6, 12, 18, 24, 30, 36) Oral Fluency Passages (Provided by the State) ***
Unit Skill Assessments, Grade 3 (Weeks 6, 12, 18, 24, 30, 36) Oral Fluency Passages (Provided by the State) ***

Reading Comprehension: *Every 8-10 Weeks, Grades 1*
Every 6-8 Weeks, Grades 2 and 3

Screening, Diagnosis, and Monitoring Progress
(Main idea, Author's point of view, Analysis, and Inference)

Early Reading Diagnostic Assessment (Psychological Corporation/Harcourt, 2000) **
Woodcock Reading Mastery Test – Revised (WRMT-R, American Guidance Services, 1998) **
Unit Skills Assessments, Grade 1 (Weeks 24, 30, 36) Reading Comprehension (Provided by the State) ***
Unit Skills Assessments, Grade 2 (Weeks 6, 12, 18, 24, 30, 36) Reading Comprehension (Provided by the State) ***
Unit Skills Assessments, Grade 3 (Weeks 6, 12, 18, 24, 30, 36) Reading Comprehension (Provided by the State) ***

Outcome
(Main idea, Author's point of view, Analysis, and Inference)

Grades 2 and 3 CA STAR Program and CA Standards Test, Reading Comprehension and Critical Analysis*

Vocabulary: Every 8-10 Weeks, Grades 1
Every 6-8 Weeks, Grades 2 and 3

Screening, Diagnosis, and Monitoring Progress
(Antonyms, Synonyms, Multiple Meanings, Context Meanings)

Woodcock Reading Mastery Test – Revised (WRMT-R, American Guidance Services, 1998) **
Test of Word Knowledge (TOWK, Psychological Corporation, 1992) **
Unit Skills Assessments, Grade 1 (Weeks 24, 30, 36) Vocabulary (Provided by the State) ***
Unit Skills Assessments, Grade 2 (Weeks 6, 12, 18, 24, 30, 36) Vocabulary (Provided by the State) ***
Unit Skills Assessments, Grade 3 (Weeks 6, 12, 18, 24, 30, 36) Vocabulary (Provided by the State) ***

Outcome
(Antonyms, Synonyms, Multiple Meanings, Context Meanings)

Grades 2 and 3 CA STAR Program (Terra Nova, CAT6) and California Standards Test, Vocabulary*

*Note: California Education Code require LEAs administer these tests annually.
**IDEA Assessment Committee, Analysis of Reading Assessment Instruments for K-3, http://idea.uoregon.edu/assessment/
***Provided by the State for *SRA Open Court Reading 2000/2002*; and HM California Edition, *Reading, A Legacy to Literacy, 2003*

California's Reading First Plan as approved by the United States Department of Education August 23, 2002. CDE, 2002.

APPENDIX I

Reading First Reading/Language Arts Assessment Schedules for Grades K-3

Exhibit XXIII

Reading/Language Arts Framework for California Public Schools

Assessment Schedules for Grades K-3

Measure	Description	Grade K	Grade One	Grade Two	Grade Three
Phoneme awareness	Detect rhyme. Count syllables. Match initial sounds. Count phonemes.	Mid-year/ spring	Fall/ winter	Only if needed	Only if needed
Phoneme deletion	Initial sounds Final sounds First sound of consonant blend Embedded sound of a consonant blend	Mid-year/ spring	Fall/ winter	Only if needed	Only if needed
Phoneme segmetation	Segment sounds. Count phonemes.	Mid-year/ spring	Fall/ winter	Only if needed	Only if needed
Beginning phonics	Alphabet names Consonant sounds	Mid-year/ spring	Only if needed	Only if needed	Only if needed
Phonics	Reading of nonsense words Other decoding Spelling		Every 4-6 weeks until mastery	Every 4-6 weeks until mastery	Only if needed
Oral reading (fluency)	Words correct per minute on grade-level text		Spring Earlier as needed	3-6 times per year	3-6 times per year
Reading compre-hension*	Main idea Author's point of view Analysis Inference		Every 8-10 weeks	Every 6-8 weeks	Every 6-8 weeks
Vocabulary	Antonyms Synonyms Multiple meanings Context meanings		Every 8-10 weeks	Every 6-8 weeks	Every 6-8 weeks
Spelling	Unit words Regular/irregular words Word patterns Single and multisyllabic words		Every 8-10 weeks	Every 6-8 weeks	Every 6-8 weeks
Conventions	Punctuation Capitalization Grammar Sentence Structure Penmanship		Every 8-10 weeks	Every 6-8 weeks	Every 6-8 weeks
Writing	Narratives (fictional and autobio-graphical) Organization/focus Single paragraph Topic sentence Facts/details Expository descriptions Friendly letter		Twice per year	Twice per year	Twice per year

*End-of-unit tests developed by publishers or teachers

California's Reading First Plan as approved by the United States Department of Education August 23, 2002. CDE, 2002.

APPENDIX J

Superintendent or Designee Permission to Conduct Study

SUPERINTENDENT OR DESIGNEE PERMISSION TO CONDUCT STUDY

To: Dr. Howard Sundberg, Superintendent, Lancaster School District

From: Michele Bowers, Pepperdine University Doctoral Student

Date: June 17, 2010

Subject: Permission to Conduct Doctoral Research on Implementation of the Reading First Program

---

I would like your permission to conduct a research study of the Reading First Program in Lancaster School District as part of my doctoral dissertation at Pepperdine University. I am studying the impact of implementation of the Reading First Program on improving literacy performance for students in Kindergarten through Fifth grade.

The purpose of the study is to examine the effect of the four key Reading First Program components (curriculum content, teacher collaboration, professional development, and coaching) on student learning in English-language arts. The study will focus on two primary areas: 1) a comparison of STAR AYP student achievement growth in English-language arts for all students and by significant subgroups between Reading First schools and non-Reading First schools; and 2) utilizing the Reading First Implementation Index (RFII) and the Reading First Achievement Index (RFAI) calculated for all Reading First schools in the district between 2005 and 2009 to determine if there is a correlation between the implementation level of the Reading First Program strategies and increased student achievement. The district has six Reading First schools and six non-Reading First schools which provide an excellent control group for comparison purposes.

Some student achievement data, as well as, the RFII and RFAI data is available to the public online through CDE and Educational Data Systems Reading First Evaluation Reports. With your permission, I also plan to access the District's OARS data management system to collect CST ELA scale scores for all students in grades through five between 2005 and 2009 for comparison purposes. No names or other identifiers will be collected, recorded, or published that may connect an individual to his/her data.

The possible benefits from the research are an increased knowledge about instructional strategies and promising practices that positively impact students' literacy learning. There may also be possible benefits from the research through identification of practices that prove effective in closing the achievement gap between African American and Hispanic students and their white counterparts.

APPENDIX J (continued)

Please sign and return your approval by June 18, 2010. If you are unable to respond by that date, please return this approval as soon as possible.

Return one copy of this signed form to:

Michele Bowers
Lancaster School District
44711 N. Cedar Avenue
Lancaster, California 93535

If you have any questions or concerns regarding this study, you may also contact the researcher's supervisor Dr. Linda Purrington at linda.purrington@pepperdine.edu.

Your signature indicates that you have read and understood the information provided above and that you have received a copy of this form.

Respectfully,

Michele Bowers

Attachments:
Copy of Superintendent or Designee Permission to Conduct Study

I hereby consent to my school district's participation in the research described above.

School District

Superintendent or Designee Signature

Please Print Superintendent or Designee's Name

Date