The Dissertation Committee for Kathryn Beatrice Chilton
Certifies that this is the approved version of the following dissertation:

Reading Programs for Culturally Diverse Middle School Students With Serious

Reading Problems: A Case Study of Program Implementation

Committee:

_____
Michael P. Thomas, Supervisor

_____
Norma Cantu

_____
Charles T. Clark

_____
Gwendolyn Webb-Johnson

_____
Ada Muoneke

_____
Jim Scheurich

Reading Programs for Culturally Diverse Middle School Students With Serious

Reading Problems: A Case Study of Program Implementation

by

Kathryn Beatrice Chilton, B.A., M.Ed.

Dissertation

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

In Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

The University of Texas at Austin

May 2006

DEDICATION

This dissertation is dedicated to my family and parents. The unconditional love of my

husband, Dr. Earl Chilton II, kept me going even in the darkest times; his continual

support and encouragement helped to make this dream a reality. He also convinced

me that not everything is a crisis. I marvel at his patience and experience. To my

children, Earl Wallace Chilton III, William Thomas Chilton, and Michael Kenneth

Chilton: You will never know how much the love in your eyes has been a source of

motivation throughout this dissertation. My parents, William James Foster and

Beatrice Mary Foster, have been a constant source of support. My mother's

extraordinary faith in me and our faith in God have guided me to the completion of

this endeavor. "All I am, I owe to my mother. I attribute all my successes in life to the

moral, intellectual [support received from her]," were the words of George

Washington, our first president. Truer words were never spoken.

It is with deepest love, respect, and admiration that I dedicate this dissertation to my

family and parents.

"For I know the plans I have for you," declares the Lord, "plans to prosper and not to

harm you, plans to give hope and a future."

Jeremiah 29:11

ACKNOWLEDGMENTS

Reading Programs for Culturally Diverse Middle School Students With Serious

Reading Problems: A Case Study of Program Implementation

University of Texas at Austin , 2008

Kathryn Beatrice Chilton, PhD

Supervisor: Michael Thomas

"Every child deserves that chance to succeed. Schools must join together, sharing successful practices and resources to create an environment where success is the norm—for every child" (Wheaton & Kay, 1999, p. 28). Reading proficiency is the cornerstone of literacy, and literacy is the cornerstone of student understanding, which translates into academic success. However, many children may never learn to read without an organized, well-designed instructional approach. This study examined an urban, diverse, Central Texas middle school that used an intensive reading intervention program to teach students with deficits in phonics and decoding skills. The study explored the implementation and the efficacy of an intervention program used to improve reading levels of urban eighth-grade students whose reading skills had fallen two to three grade levels behind. Qualitative methods included interviews with teachers and administrators as well as analysis of school and school

district documents; quantitative methods included pre- and postintervention testing of reading skills, including Reading Level Indicators and grade level scores. Although the study has limitations in terms of sample size, control treatments, and applicability to a wider population, results provide a basis and a framework for other studies.

Based on data analysis, teachers and administrators perceived the reading intervention program to be successful in improving the reading skills of culturally diverse middle school students at the study school. Data revealed statistically significant validation of this perception. Implementation of the intervention program included a number of facets that other research suggests as conducive to success. A direct teaching approach was used to increase phonemic awareness and skill as well as vocabulary and comprehension. The program was well organized and scripted. Teachers were well trained. Class size was small, and the program was integrated into the school-day structure. Also, extrinsic rewards increased student self-esteem and proficiency. The resultant grounded theory was that implementing a reading intervention program that emphasizes comprehension, organization, and positive reinforcement in a racially diverse, urban middle school comprised primarily of low-income, diverse students, should increase student reading skills.

TABLE OF CONTENTS

List of Tables

List of Figures

Chapter 1

Introduction

One of the greatest challenges facing the United States as we move into the

21st century is that of providing a quality education. This is obviously important for

all children in the nation's schools, regardless of their ethnic or socioeconomic

backgrounds (Cole-Henderson, 2000). However, U.S. education policymakers and

practitioners today face significant problems in reducing differences in achievement

among students of different ethnic groups. Despite research suggesting that schools

can educate students successfully without regard to students' categorical membership

(Edmonds, 1979; Lezotte, 1989), many schools fail to do so. Specifically, students of

color and poverty tend to achieve less than their White and economically advantaged

peers. This is particularly alarming in light of the fact that children of color represent

one of the fastest growing segments of the U.S. population and the largest component

of its public school enrollment (Nettles & Perna, 1997). As a result, the nation cannot

continue to ignore or waste this precious source of talent. It is imperative that

educators address the core issues related to the academic underachievement of both

culturally diverse students and economically challenged children. These issues will

become increasingly clear over the next 20–30 years as Americans begin to recognize

that as the number of children declines, minorities (non-Whites) will become the

majority (Hodgkinson, 1992). The United States will become a nation of

underachievers if these "new majority" youngsters are allowed to lag behind their

White counterparts. However, preliminary research suggests that effective reading instruction—and the skills that develop as a result during the early years of school—may be an effective strategy for enhancing the achievement of all students (National Reading Panel, 2000).

The importance of reading, and thus effective reading instruction, cannot be overestimated. Lyon (1997) described reading as the "foundation of academic success" (p. 2), whereas Humphrey and Lipsitz (1997, p. 305) wrote, "In our modern society, literacy demands are steadily increasing across all arenas of our lives, making strong reading achievement a necessary accomplishment for all." Similarly, the National Research Council (NRC, 1998) has concluded that proficient reading is essential for social and economic success in U.S. society. The National Commission on Excellence in Education (1983) reached the same conclusion in the report, *A Nation at Risk*. Those who have difficulty reading are, thus, easily left behind (U.S. Department of Education, 2002). Indeed, the future success of all students hinges upon their ability to become proficient readers (Foorman, Francis, Fletcher, Schatscheider, & Mehta, 1998). Poor reading skills have led to increased deficits in literacy among school-aged children nationwide (Moats, 2001). Therefore, it is imperative that educators recognize that reading is an essential element for success in today's society.

Context of the Problem

Learning to read early and with proficiency is an important task relative to academic success, but one that many children find difficult. Griffin (2001) found that children who did not learn to read early in their academic careers were at risk of falling behind their peers. Readers must be able not only to read, but also to read with ease so that their attention can be focused on understanding text (Moats, 1999). Unfortunately, for approximately 50% of U.S. children, learning to read is a formidable challenge (National Education Goals Panel, 1995). For at least 20–30% of these youngsters, reading is one of the most difficult tasks they will be called upon to master throughout their lives (Lyon, 1997).

One reason for the importance of reading as an indicator of academic and social success is that reading serves as a conduit for information to enter into the lives of children who are often educationally sheltered (Mather, 1992; Parlapiano, 1999). New points of view and vistas of inquiry are opened up through reading. Reading also can serve as the most important avenue for students to learn about other people, history, social studies, language arts, science, mathematics, and a host of other subjects that should be mastered in school (Fletcher & Lyon, 1998; Lyon, 1997).

Therefore, reading failure is a serious national problem. This problem has been attributed to a variety of factors, including poverty, immigration, or second language learning (Snow, Burn, & Griffin, 1998). The National Education Goals Panel's (1995) report documented that reading failure is a national problem, finding large numbers of students reading below grade level. A number of other studies have

substantiated these findings. A study by the National Assessment of Educational Progress (NAEP, 2005) indicated that large percentages of fourth graders were reading below basic levels: 25% of White students, 59% of African American students, 56% of Hispanic students, 28% of Asian students, 28% of Pacific Islander students, and 51% of Native American students. The data were worse for urban and minority children. According to Manzo and Sack (1997), 70% of urban fourth graders cannot read proficiently. Poverty-induced low self-esteem could be a significant factor holding back many urban children from achieving reading success.

Failure to learn to read adequately is much more likely among non-White children and nonnative speakers of English (Lyon, 1997), and these groups are more likely to be poor than are White students in the United States (Lyon, 1999). According to the former Secretary of Education Rod Paige, the current situation is unacceptable: "Our children deserve better, and we will change this" (U.S. Department of Education, 2002, p. 2). Echoing Lyon, Secretary Paige also stated, "Reading is the foundation of academic success—I cannot stress this enough" (p. 2). Clearly, adequate reading skills are needed to ensure that students become properly educated. Regardless of race, ethnicity, or socioeconomic status (SES), attaining a high-quality education in the United States historically has been seen as a way of improving one's prospects in life (Hirsch, 1987).

Statement of the Problem

Demands for literacy are expected to increase in the 21st century because of the knowledge explosion fueled by technology (Meyer & Felton, 1999). To keep up with knowledge growth, it will be critical to be able to access information, which will depend on "fluent, skillful, critical independent reading" (Zemelman, Daniels, & Hyde, 1998, p. 56). Therefore, unless instructors can increase the level of reading proficiency among culturally diverse students, particularly African Americans and Hispanics, a whole generation of socially and economically disadvantaged students may be doomed to remain that way throughout their lives (Levin, 1986; Reyes, 1990). To explain, economic as well as social forces are causing many organizations, including educational institutions; to rethink the way they do business (Castle & Estes, 1995). Economic forces give society an incentive to produce a well-educated work force simply to gain a competitive advantage in the marketplace. Second, as McDonald et al. (1999) pointed out, many educators and politicians among others seem to be interested in delivering on the promise of "equitable opportunity for all Americans" (p. 36). In fact, to many, the No Child Left Behind Act of 2001 (2002) was created to fulfill the goal of equal opportunity for all races, religions, and ethic groups. Bush stated,

> If our country fails in its responsibility to educate every child, we're likely to fail in many other areas. But if we succeed in educating our youth, many other successes will follow throughout our county and in the lives of our citizens. (No Child Left Behind Act, 2002)

Thus, the No Child Left Behind Act is one major blueprint for education reform.

Moreover, almost all U.S. jobs require a certain degree of literacy; those unable to read will not do well. Additionally, reading skill serves as a major avenue for learning about other people, history and social studies, language arts, science, mathematics, and the other content subjects that must be mastered in school. Unfortunately, the data suggest that for about half of the nation's children learning to read is a formidable challenge (Lyon & Moats, 1997). When children do not learn to read proficiently, their general knowledge, spelling and writing abilities, and vocabulary development suffers in kind. Within this context, reading skill serves as the major foundational skill for all school-based learning, and without it, the chances for academic and occupational success are severely limited. Because of its importance and visibility, learning to read inadequately can squash the excitement and love for learning that many youngsters have when they enter school.

Significance of the Problem

A study conducted by the NICHD (2000) that followed both good and poor readers from kindergarten into young adulthood found that poor readers are largely doomed to failure from the beginning. By the end of the first grade, those students who have not been able to master reading skills and keep up with their classmates begin to display substantial decreases in self-esteem, self-concepts, and motivation to learn to read. Through elementary and middle school grades, these problems compound, and in many cases, very bright youngsters are unable to learn about the wonders of science, mathematics, literature, and the like because they cannot read the

grade-level textbooks. By high school, these children's potential for entering college has decreased to almost nil, with few choices available to them with respect to occupational and vocational opportunities.

Thus, researchers attempt to track patterns and trends in student achievement in our nation, in the states, and among the various groups that are served by our schools. For the first time, in 2002, students in all 50 states participated in the NAEP as part of requirements under the No Child Left Behind Act of 2001. NAEP (2001) results indicated, as have so many other studies, that failure to learn to read adequately is much more likely among poor children, among non-White children, and among nonnative speakers of English. As reported earlier, 2005 NAEP data showed that 25% of White students, compared to 59% of African American students and 56% of Hispanic students, were reading below basic levels in the fourth grade. However, 32% of those who were reading below the basic levels were from homes where the parents had been college educated. These data underscore that fact that reading failure is a serious national problem that cannot be totally attributed to poverty, immigration, or learning English as a second language.

Reading achievement is the crucial link between middle school students and their future success. It is vital that middle schools provide the personnel, time, and resources needed to produce successful readers (Humphrey, 2001). Reading failure is a particular problem for middle school students. Being able to read fluently in middle school is very critical, because middle school is a time of high reading demands and critical thinking of new material. A middle school student with gaps in the ability to

7

pronounce words is at the greatest risk of dropping out of school during these years (Caldwell & Ginthier, 1996; Dunn & Griggs, 1988; Hobbs, 1990; Tuma, 1989).

Purpose of the Study

This study examined an urban, diverse middle school as a case example of how to increase reading achievement for students using an intensive reading intervention program. The implementation had a school-wide focus, and the case studies utilized the Science Research Associates (SRA) corrective reading program (B1 and B2) with eighth-grade students with reading difficulties. The criterion for inclusion was a reading level two to three grade levels below normal. Students received a 45-minute intervention, five times a week, for a total of 53 sessions over a 12-week period. The intensive program was intended to correct decoding deficits in struggling middle school readers.

Recent research has been able to identify and replicate findings that point to at least three factors that hinder reading development among children, irrespective of their environment, socioeconomic, ethnic, and biological backgrounds. These three factors include deficits in (a) phonemic awareness, (b) decoding principles, and (c) acquiring reading comprehension strategies and applying them to the reading of text (Brosio, 2001; Haycock, 2001; Lezotte & Pepperl, 1999). This study focused on eighth-grade students with deficits in phonemic awareness and decoding skills.

The following research questions guided this study:

1. Based on a range of data (pre- and posttests), what are the probable achievement effects of an intensive reading intervention program?

2. What are the perceptions of teachers and administrators about the effectiveness of an intensive reading intervention program for culturally diverse, low-SES, middle school students?

3. What do these data (perceptions and scores) indicate about the implementation of an intensive reading intervention program (SRA), and what would be the grounded theory of this particular case of program implementation?

Definition of Terms

Grapheme: The smallest part of written language that represents a phoneme in the spelling of a word.

Low SES: Low socioeconomic status, as identified by those students who qualify for the free or reduced-price school lunch program.

Middle school students: Students aged 10–14 attending school in Grades 6–8.

NAEP: National Assessment of Educational Progress.

NEGP: National Education Goals Panel.

NICHD: National Institute of Child Heath and Human Development.

NRC: National Research Council.

Phoneme: The smallest part of spoken language that makes a difference in the meaning of words.

Phonics: The understanding that there is a predictable relationship between phonemes (the sounds of spoken language) and graphemes (the letters and spelling that represent those sounds in written language).

Phonemic awareness: The ability to hear, identify, and manipulate the individual sounds—phonemes—in spoken words.

TAAS: Texas Assessment of Academic Skills. The TAAS measures the statewide curriculum in reading, mathematics, and writing at the exit level. TAAS is the graduation requirement for students who were enrolled in Grade 9 or higher on January 1, 2001, at a Texas school.

Design of the Study

The qualitative study design is useful for describing or answering questions about particular, localized occurrences and perspectives of a participant's beliefs and practices (Gay & Airasian, 2000). This was a single case study that utilized qualitative methodology to investigate one Central Texas middle school that had been rated Low Performing by Texas Education Standards for 3 years. After the implementation of a school-wide reading intervention program, the school received an Acceptable rating from the Texas Education Agency. Qualitative methods can be used to determine staff and administration perceptions regarding the impact of the reading intervention program on the school's improved rating. More specifically, the

focus of this qualitative research was the process, implementation, and development of the program and its participants (Patton, 1990).

Interviews were conducted with administration, faculty, and staff through purposeful sampling. The interviews were conducted individually and each lasted approximately 1–2 hours. The researcher, as interviewer, served as the primary research instrument. Field notes from the interviews were coded in an effort to create and elaborate analytic themes that served as building blocks for constructing the qualitative narrative (Emerson, 1995). The steps involved in this process included writing out initial statements of analytic themes and then selecting, explicating, sequencing, and editing field-note excerpts to build up a series of thematically organized units of excerpts and analytic commentary (Emerson, 1995). Through these collection processes, data regarding how the school was successful were collected and analyzed. Grounded theory was used starting with the data and inductively developed a theory that fit the data; this approach provided a measure of flexibility and freedom to explore what may be occurring rather than simply testing one theory at a time. The research methods that were employed in this study are more fully described in chapter 3 of the paper.

Limitations

Although this study may fill a gap in the literature, certain limitations may exist. The study focus was limited to urban middle school students who were struggling readers who were not in special education programs, but performed two to

three grade levels below their grade level. Also, this study includes those limitations inherent in the use of qualitative methodologies and the case study. Being a single case study, findings do not represent all schools in Central Texas. Because of their nature, case studies may not be generalizable to every instance in the larger population; however, case studies can establish at least the limiting cases relevant to a given situation (Guba & Lincon, 1989). Further limiting generalizability, all schools and their situations are unique and employ their own unique combination of theories, tools, and methods for learning (Senge, 2000). Additionally, this study was limited to interviews with select district leaders; therefore, findings do not necessarily reflect the understanding and experiences of other district staff members.

Summary

With the new technology demands of the 21st century, students need the ability to use higher order thinking skills and not to struggle with reading to understand material. Reading with fluency and critical thinking skills are imperative to become a successful adult. Middle school is a critical time for students to acquire and use these skills. Therefore, this study examined an urban, diverse, middle school as a case example of how to increase reading achievement for all students using an intensive reading intervention program. A literature review of the relevant research provides a theoretical basis for the study, presented in chapter 2.

Chapter 2

Literature Review

Middle School Reading

For two decades the call for the improvement of students' achievement in core academic subjects has been at the center of political and educational agendas at the state and local school district levels (Fullan, 2000). Statistics on the literacy skills of American children reveal that approximately 40% of students across the nation cannot read at a basic level (Brynildssen, 2002). As of 1998, approximately 4 million middle school students had below-grade-level reading skills in the United States (Donahue, Voelkl, Campbell, & Mazzeo, 1999).

Reading problems that flow from primary school to middle school have to be addressed and solved to lower student dropout rates, which increase in middle school. Once students leave Grade 3, instruction in reading takes a back seat to instruction in content areas (Chall, 1993). Therefore, most middle school students who struggle with reading have done so since early elementary school. Upon entering middle school, students must be able to make the transition from learning to read to reading to learn a higher order thinking skill to comprehend the content of instructional materials (Wagner, 1990; Sturtevant, 1996). Struggling middle school readers often demonstrate deficits in basic skills such as phonemic awareness, phonics, fluency, vocabulary, and comprehension. These skills can be mastered with specific instruction (Alley, Desher, Clark, Schumaker, & Warner, 1983; Wolfram, 1994).

Consequently, struggling middle school readers develop increasingly negative attitudes toward reading that are more pronounced than those of average and above-average readers (McKenna, Kear, & Ellsworth, 1995). Additionally, numerous studies have reported that by the time students reach the middle grades, they have become uninterested in reading (Ley, Schaer, & Dismukes, 1994; McKenna et al., 1995). Middle school teachers are then confronted with students who continue to struggle with decoding as well as with comprehension and who are further hampered by lack of interest or a negative attitude.

What is known is that if a student cannot read by the eighth grade, the likelihood of dropping out of school is very high. Unfortunately for these dropouts, by today's standards those without a high school diploma cannot enter military service or work in many entry-level service-oriented jobs. Lovett et al. (2000) as well as Torgesen et al. (2001) indicated that increasing reading skills in older children with serious reading problems requires intensive paced reading with explicit decoding emphasis. Reading difficulties in older readers may stem from many factors such as (a) poor word identification, (b) guessing words based on the context, (c) decoding unfamiliar words, and (d) lack of fluent word recognition. Also, reading comprehension tends to move up to a level that is consistent with older readers' general verbal skills (Torgesen, Rashotte, Alexander, & MacPhee, 2002).

Torgesen et al. (2002) reported that explicit instruction in phonemic decoding skills to increase older students' sight word vocabulary is generally ineffective in producing lasting reading improvement with students who have serious reading

14

difficulties. Additionally, children from low-SES homes may suffer from lower verbal skills and language comprehension difficulties resulting from restricted vocabulary and background knowledge. Increasing vocabulary development through focused intervention strategies and methods can be as powerful as comprehension strategies. These students are frequently culturally diverse students or from low-SES families, as the next section discusses.

The Impact of SES and Self-Esteem on Reading Success

One significant factor that may explain these results is poverty-induced, low self-esteem, a factor that could create problems for many urban children in terms of reading success. For example, Horowitz (2000) and Gunning (1992) both reported data suggesting that low self-esteem is significantly related to low reading achievement. Poverty and poverty-induced, low self-esteem also may be factors contributing to reading disparities among particular racial and ethnic groups as well. Failure to learn to read adequately is much more likely among non-White children and nonnative speakers of English (Lyon, 2001), and these groups are more likely to be poor than White American students (Lyon, 1999).

However, poverty cannot account for all subpar reading. Nationally, 32% of fourth graders who read below grade level are from homes where the parents graduated from college (Mercer, Campbell, Miller, Mercer, & Lane, 2000). Unfortunately, though, the NAEP indicated that the gap between good readers and poor readers widens as they progress through school (Powers, 2003). According to

Former secretary of Education Rod Paige, the current situation is unacceptable: "Our children deserve better, and we will change this" (U.S. Department of Education, 2002, p. 2). Secretary Paige added, "Reading is the foundation of academic success— I cannot stress this enough" (No Child Left Behind Act, 2002).

Reading Performance of Culturally Diverse Middle School Students

One of the greatest challenges currently facing the United States is that of providing a quality education for all children in the nation's schools, regardless of their ethnic or socioeconomic backgrounds. Regardless of race, ethnicity, or SES, in the United States, attaining a high-quality education historically has been seen as a way of improving one's prospects in life (Hirsch, 1987). However, this is especially true for those who are socially and economically disadvantaged (National Center for Education Statistics, 1999). Unless ways are found, then, to increase the level of reading proficiency among culturally diverse students, particularly African Americans and Hispanics, a whole generation of socially and economically disadvantaged students may be doomed to remain that way throughout their lives (Levin, 1986; Reyes, 1990).

The rate of reading failure for African American, Hispanic, limited-English-proficient, and poor children ranges from 60% to 70%. Given that children of color represent one of the fastest growing segments of the U.S. population and the largest component of its public school enrollment (Nettles & Perna, 1997), the nation cannot continue to ignore or waste this precious source of talent. It is imperative that

16

educators address the core issues related to these students' academic underachievement.

Questioning American students' reading proficiency has been a central theme in negative education campaigning. According to Berliner and Biddle (1995), American schoolchildren haven fallen behind children in other nations, and illiteracy is rampant across the nation. Additionally, low reading achievement, more than any other factor, is the root cause of chronically low-performing schools, which harm students and contribute to the loss of public confidence in school systems (Moats, 1999). Thus, educators long have sought to increase academic achievement among young adolescents in urban middle schools.

Teachers in urban schools face particularly difficult challenges (Burnett, 1994). Achievement rates tend to be low, and rates of disruptive behavior and absenteeism tend to be high. Students sometimes tend to move in and out of the school districts, and parental or guardian participation in the school lives of the students is often lacking. Personal economic and family situations may have a negative impact on student learning, and teachers find themselves becoming involved in a "vast web of interconnected social problems" (Burnett, p. 26).

Additionally, urban schools generally lack financial and material resources that are commonly associated with high-achieving schools (U.S. Department of Education, 1999). Inadequate supplies and equipment, often the result of inequitable distribution of financial resources, typically include such basics as desks, chalkboards, children's literature books, and up-to-date textbooks. If urban schools

lack such basic resources, they are not likely to have access to more advanced

resources, such as computers, manipulative and graphing calculators for mathematics,

laboratory materials for the sciences, and maps and artifacts for the social sciences.

Summarizing numerous studies, the U.S. Department of Education (1999) concluded

that the physical environment, including the condition of the school building and the

quality and availability of necessary classroom equipment, is linked to the

achievement and behavior of students and to the morale of teachers in high-poverty

areas.

Moreover, Ascher (1991) observed that the challenges teachers encounter in

urban schools are reflected in a high degree of teacher turnover (frequently related to

burnout), a high level of teacher absenteeism (and thus a greater dependence on

substitute teachers compared with nonurban schools), and in some cases a low level

of classroom instructional and management skills. Research has demonstrated clearly

that student learning is affected by teachers' qualifications and experience, yet the

very schools where students most need excellent teachers often have the greatest

difficulty hiring and retaining the best. This is because those schools that serve poor

and culturally diverse children (often urban schools) have limited funds for the

educational environment (Ascher, 1991).

However, some effective urban schools manage to surmount these obstacles.

Purkey and Smith (1982) described effective urban schools as consisting of "a

structure, process and climate of values and norms which channel staff and students

in the direction of successful teaching and learning" (p. 182). Purkey and Smith

18

discussed the factors that create an atmosphere of heightened student achievement, including (a) willingness on the part of school stakeholders (teachers, administrators, students, parents, and community members) to engage in collaborative planning and collegial relationships, (b) the development of a sense of community among stakeholders, (c) the establishment of clear goals and high expectations of student performance, and (d) the presence of order and discipline within the school.

Strong leadership is also an essential building block to constructing a successful literacy program (Purkey & Smith, 1982). Highly successful instructional leaders are committed to improving classroom instruction, professional learning, student assessment and achievement, and collegial classroom observations to support and improve reflective teaching (Schön, 1988). Students who fall behind do not catch up or become fluent readers unless expensive, intensive help is available to them (Torgensen, Wagner, & Rashotte, 1994). However, data have indicated that when placed into schools with effective principals and well-prepared and well-supported teachers, African American, Hispanic, or economically disadvantaged students can learn to read as well as their more advantaged peers (Nicholson, 1997). The reading problems these students and those of all backgrounds encounter have been attributed to deficits in a number of specific areas, described below.

Deficits in Word Recognition Skills

Woods (1998) wrote, "Students at risk for educational failure are typically students who are struggling readers…who are often unable to undertake even the

simplest course assignment because the textbooks they are required to read are too

difficult for them" (p. 67). Many educators feel that students should have mastered

word recognition skills during the primary grades, allowing middle school instruction

to focus on content areas. However, some middle school students do not do well in

academic areas because they have difficulty identifying unknown words in print

(Marlow, 2001). Students need to recognize an adequate number of words correctly to

understand ideas being read. Without an intensive program to counteract this deficit, a

major problem for middle school struggling readers is the lack of ability to recognize

selected words.

Deficits in Cognitive Language Skills

Reading calls on primarily a deep linguistic processing, not on more

peripheral auditory or visual perceptual skills. Poor readers are not less intelligent or

less motivated; they are, however, less skilled with language, especially at the level of

elemental linguistic units smaller than whole words (Ivey, 1999; Torgensen &

Wagner, 1998; Wilson, 2000). For this reason, they benefit from instruction that

develops awareness of sounds, syllables, and meaningful word parts.

Deficits in Phonics Skills

Phonics is the knowledge and skill required to "sound out" words that the

reader has not encountered before in text. Phonics require the understanding that

words in oral language are represented in print at roughly the phonic level—

sometimes referred to as the "alphabetic principle" (Liberman, Shankweiler, &

Liberman, 1989). Students who have attained an initial level of understanding in this

area understand a predictable relationship between the phonemes in spoken language

and the graphemes (letters) in written language. Poor readers have problems with

phonological or speech–sound processing systems. These skills include awareness of

linguistic units that lie within a word (consonants, vowels, syllables, grammatical

endings, meaningful parts, and the spelling units that represent them) and fluency in

recognition and recall of letters and spelling patterns that comprise words

(Moats,1999).

Deficits in Reading Comprehension Skills

Comprehension is the ability to understand individual words, phrases and

clauses, sentences, paragraphs, and larger units of text. The ultimate goal of reading

comprehension is to establish understanding. Poor readers have deficits in

comprehension strategies, text structures, and comprehension monitoring—all of

which are critical for successful comprehension (Bos, Schumm, & Vaughn 2003). In

order to improve their understanding of the written word, these readers need specific

ways to prepare for reading and to summarize and reflect about what they have read.

Explicit and systematic instruction in decoding and vocabulary can improve

comprehension and help poor readers more fully understand what they are reading. If

decoding skills are poor, students are unable to recognize even words they know, and

if vocabulary is limited, the meaning of many sentences, or even whole passages, may be missed by students who do not know the meaning of the words being used.

Deficits in Reading Fluency

Intensive instruction tailored to fit the needs of struggling adolescent readers is critical for students reading below grade level to become more effective readers (Harmon, 2000). Struggling readers take longer and require more exposure to recognize and rapidly recall words (Ehri & Wilce, 1983). Students who are fluent readers can read with speed, accuracy, and expression. The building blocks of such fluency are word recognition skills; students who have trouble recognizing words also have difficulty reading with the speed, accuracy, and expression typically associated with good readers. Furthermore, struggling readers have trouble understanding what they have read (NAEP, 1999). The ability to read fluently remains necessary for independent comprehension of text, and experts have agreed that fluency instruction should provide multiple opportunities for practice (Ehri & Wilce, 1989; Snow et al., 1998). Snow et al. emphasized that frequent opportunities to practice reading are the best way to achieve fluency.

What the Literature Says Struggling Middle School Readers Need

Struggling middle school readers need access to material that spans the gamut of interest and difficulty levels (Fielding & Roller, 1992). Additionally, they need trade books found to be a key to motivating some middle school students to read.

Instructional-level materials have similar importance. For students to improve at reading, they need many opportunities to read materials they can read with 95% accuracy in word recognition (Betts, 1954). For middle school students who are 3 or more years behind other students in reading ability, this may present a problem; many of the materials in the classroom are difficult for them. Fielding and Roller presented the principle of "making difficult books accessible and easy books acceptable" (p.89), a principle that should apply beyond the early grades and into the upper elementary and middle grades.

Also, shared reading times are good opportunities for students to learn from their teachers and classmates about how to improve oral reading. Equally important to struggling middle school readers are opportunities to read one-on-one with a peer or a teacher. If students who struggle with reading are to become better and more enthusiastic, they need many opportunities to enjoy the literate experience with peers and teachers when they are not also being monitored, corrected, or tested. These enjoyable opportunities are particularly important because for struggling middle school readers, increasingly negative attitudes toward reading are more pronounced than for average and above-average readers (McKenna et al., 1995).

Thus, it is critical to help struggling readers develop a strong, well-founded belief that they can do well in reading if they make the effort to learn and apply what they are taught.

Standards for the English Language Arts

There have been discussions among educators across the country about the central aims of English language arts instruction. As a result, the International Reading Association and the National Council of Teachers of English have defined a set of content standards for the English language arts. The purpose of these standards is to ensure that all students are offered the opportunities, the encouragement, and the vision to develop the language skills they need to pursue life's goals, including personal enrichment and participation as informed members of our society (National Council of Teachers of English, 1996). Although these standards are listed below, they are not distinct and separable; they are interrelated and should be considered as a whole.

1. Students read a wide range of print and nonprint texts to build an understanding of literature, of themselves, and of U.S. and world cultures; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. These texts include fiction, nonfiction, classic, and contemporary works.

2. Students read a wide range of literature from many periods in many genres to build an understanding of the many dimensions (e.g., philosophical, ethical, and aesthetic) of human experience.

3. Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They draw on their prior experience, their interactions

with other readers and writers, and their understanding of textual features (e.g, sound–letter correspondence, sentence structure, context, and graphics).

4. Students adjust their use of spoken, written, and visual language (e.g., conventions, style, and vocabulary) to communicate effectively with a variety of audiences and for different purposes.

5. Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

6. Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts.

7. Students conduct research on issues and interests by generating ideas and questions and by posting problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, and people) to communicate their discoveries in ways that suit their purpose and audience.

8. Students use a variety of technological and informational resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.

9. Students develop an understanding of, and respect for, diversity in language use, patterns, and dialects across cultures, ethnic groups, geographic regions, and social roles.

10. Students whose first language is not English make use of their first language to develop competency in the English language arts and to develop an understanding of content across the curriculum.

11. Students participate as knowledgeable, reflective, creative, and critical members of variety of literacy communities.

12. Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).

Implementation of Rigorous Reading Curriculum

Research has suggested that the implementation of high reading standards can significantly increase reading performance in school (Raywid, 1992; Wayson, 1988), whereas low standards tend to breed low results (Shulman, Lotan, & Whitcomb, 1998). Therefore, if reading in urban, predominantly culturally diverse schools is to be improved, the curriculum expectations for both teachers and students must be raised to a higher level (Levine & Eubanks, 1992). Two key factors are necessary to accomplish this task. The first is vision. Parents, teachers, faculty, and administrators must develop and promote a belief in high expectations and achievement. The second factor is scientific, research-based reading instruction. Programs should be based on the best research available, with data to indicate the highest possible likelihood of success.

Vision

        Principals who believe all children can learn. With a new focus on improving schools and increasing student achievement, school leaders must possess effective skills to provide the necessary changes for education (Hayes, 1991; Hoffman, 1992). One of the most essential leadership skills for significant improvements in school performance is the ability to develop and impart a vision of success to students and faculty alike. Research and practice have demonstrated the important role of vision and mission, especially in schools (Invernizzi, Rosemary, Juel, & Richards, 1997; Juel, 1988). Equally important, though, is the role of the leader in developing the necessary vision for a school (Deal & Peterson, 1990). This concept of the need for effective leadership has been described in research dealing with effective schools, school restructuring, and leadership in general (Teddlie & Stringfield, 1993). Principals in particular, but also teachers and parents, must develop a clear vision for reading performance (Hoy & Miskel, 1991; Immegart, 1988). Effective school leaders often begin the process of developing a vision for their schools by collaborating with the major stakeholders in the school community, whose hopes, dreams, expectations, and values contribute to the school's goals and aspirations (Immegart, 1988; Wang, 1998). When the process is complete and the vision is implemented, certain school characteristics tend to emerge, such as (a) strong leadership from the principal, (b) high standards and expectations of success for all students, (c) clear goals for students' academic and behavioral performance, (d) an

27

emphasis on academic pursuits, and (e) an active and systematic program of professional development for teachers and other staff (Putnam & Borko, 2000).

Much of a school's success or failure hinges in the principal, who must develop shared leadership, have a clear vision, and practice effective communication (Freiberg, 1999; Teddlie & Stringfield, 1993). Principals must be actively engaged and committed to the development of shared leadership (Deal & Peterson, 1990). Shared leadership has to develop among the instructional coaches, assistant principals, and teachers through effective communication strategies (Senge, 1990; Wang, 1998). Shared leadership is meant to ensure that everyone is a stakeholder (Deal & Peterson, 1990; Reyes, Scribner, & Scribner, 1999) and that everyone is responsible for the academic success of the children (Slavin & Madden, 2001). Stakeholders then work with the principal to ensure the success of the shared vision (Hoy & Miskel, 1991; Senge, 1990). Adversarial relationships are minimized, and principals, stakeholders, and teachers work together to ensure the vision is realized (Bredeson, 1994).

Including stakeholders. Effective principals include parents as involved stakeholders. These principals seek parental involvement in the decision-making process, and parents in turn will develop a sense of ownership and a sense of urgency about their children's reading problems (Emmitt & Pollock, 2002; Hoy & Miskel, 1991; Juel, 1988). Additionally, this collaborative culture created by the principal involves all lead teachers. Lead teachers are chosen by their peers from every grade level or department to represent them in the decision-making process regarding

instructional programs (Gambrell, 1977; Gunning, 1992). These lead teachers share in

the vision but also must understand the second principle of increasing expectations

and improving middle school reading: scientific, research-based reading instruction.

Research-Based Components of Effective Reading Instruction

The most fundamental responsibility schools have is teaching students to read.

Indeed, the future success of all students hinges upon their ability to become

proficient readers. Scientists now estimate that 95% of all children can be taught to

read (Moats, 1999). Scientific and educational research has found new ways to save

young minds by helping them to become proficient readers; however, these new

methods must be promoted throughout the education system. Young lives depend on

it. Therefore, all reading teachers should have access to scientifically based reading

methods knowledge.

Although some children will learn to read in spite of less than adequate

teaching, others will never learn to read without being taught in an organized,

systematic, efficient way using a well-designed instructional approach. One of the

premises is that "the ability to read and write does not develop naturally, without

careful planning and instruction" (International Reading Association, 2001, p.15).

According to the research, effective reading instruction has two major dimensions:

1. It must focus on the essential components of reading: phonics, phonemic

awareness, fluency, vocabulary development, and text comprehension.

2. It must be organized, delivered and managed in a way that is consistent with what has been learned from scientific research.

Effective reading instruction programs most often have demonstrated detailed plans to provide explicit instruction in components and practices consistently identified through research as the critical skills that students need to learn to become good readers (National Reading Panel, 2000). These five essential skills have been validated by the National Reading Panel report and the NRC (1998); both reports identified essential knowledge areas and skills that must be developed for students to become good readers and to create a foundation for higher level literacy skills: (a) phonemic awareness (understanding of letter–sound relationship), (b) phonics, (c) reading fluency, (d) vocabulary development, and (e) reading comprehension.

Explicit phonemic awareness. Explicit phonemic awareness is an oral language skill that involves the ability to identify and manipulate the individual sounds in words. Phonemic awareness involves both a specific conceptual understanding about language and a set of skills that develops with practice and application (Torgensen & Mathes, 2002). Conceptually, phonemic awareness involves the understanding that words are composed of segments of sound smaller than a syllable, and that these small sounds are used and reused in many different combinations to make up words. As a set of skills, phonemic awareness involves the ability to identify and manipulate the specific sounds in words and the gradual development of these skills. Growth in phonemic awareness following attainment of

beginning levels of understanding and skill is driven primarily by instruction and

practice in the use of phonemic decoding strategies in reading (Perfetti, 1985; Wagner

et al., 1997). Thus, phonemic awareness involves both a specific conceptual

understanding about language and a set of decoding skills that develops with practice

and application (Torgesen & Mathes, 2002).

Decoding skills involve awareness of the sound structure of speech

(Torgensen & Wagner, 1998; Andrews, 1998) as well as the automation or rapid

naming of verbal material. Phonemes are the smallest unit composing spoken

language and are different from letters that represent phonemes in the spelling of

words. Instruction in phonemic awareness involves teaching children to focus on and

manipulate phonemes in spoken syllables and words. Phonemic awareness is both a

prerequisite for and a consequence of learning to read (Yopp, 1992). Research has

indicated that phonological awareness can be taught and that increasing students'

awareness of phonemes facilitated their subsequent reading acquisition (Lundberg,

1988).

The following recommendations for instruction in phonemic awareness are

derived from Bursuck, Smith, Munk, Damer, Mehlig, and Perry (2004):

1. Engage children in activities that direct their attention to the sounds in

words, such as rhyming and alliteration games.

2. Teach students to segment and blend.

3. Combine training in segmentation and blending with instruction in letter–

sound relationships.

31

4. Teach segmentation and blending as complementary processes.

5. Systematically sequence examples when teaching cementation and blending.

6. Teach for transfer to novel tasks and contexts.

In the large majority of cases, limited phoneme awareness is at the root of reading difficulty (Lyon, 1995). Engaging students in oral activities that emphasize the sounds of language may go a long way in helping them become successful readers and learners.

Explicit phonics instruction. Phonics is the knowledge and skill required to "sound out" words that have not been encountered before in text. It involves the understanding that words in oral language are represented in print at roughly the phonemic level—sometimes referred to as the "alphabetic principle" (Liberman et al., 1989). The role of phonological awareness in facilitating reading has been well established (National Reading Panel, 2000).

Thus, explicit phonics instruction is systematic and explicit instruction in the code system of written English. Another effective reading instruction technique is daily exposure to a variety of texts as well as incentives for children to read independently and with others. Many struggling readers beyond the elementary grades never properly learned decoding skills (Torgensen & Wagner, 1998; Wilson, 2000). These students need systematic and explicit instruction in the coding of written English before they can achieve reading fluency.

Explicit reading fluency. Meyer and Felton (1999) defined reading fluency as the ability to read connected text rapidly, smoothly, effortlessly, and automatically with little conscious attention to the mechanics of reading such as decoding. Others have suggest definitions of reading fluency that go substantially beyond reading rate to include grouping words into meaningful phrases as one reads (Aulls, 1978), prosodic reading (Allington, 1994), or reading with the kind of intonation and stress that maximizes comprehension (Rasinski, 1990). After reviewing a broad range of definitions of fluency, Hudson, Mercer, and Lane (2000) concluded that the richest interpretation of the concept would be to define it as "accurate reading at a minimal rate with appropriate prosodic features (expression) and deep understanding" (p. 64). Fluency should be applied to the entire reading process, from word identification to identification of word meanings to construction of phrase and passage level meaning.

Explicit vocabulary instruction. Vocabulary instruction should be explicit and include a variety of complementary methods designed to explore the relationships among words and the relationships among word structure, origin, and meaning. Vocabulary development involves growth in knowledge of the meanings and pronunciations of words that are used in both oral and written language. The vocabularies students use during listening, speaking, reading, and writing can differ, but vocabulary knowledge is essential for good reading skills because it underlies the ability to comprehend written material (Davis, 1942; Gough, 1993). The relationship

between vocabulary knowledge and reading comprehension is reciprocal (Cunningham & Stanovich, 1991). Students must have most of the appropriate words in their vocabulary to construct meaning from any text; however, as they construct meaning from text, they also have the opportunity to learn the meanings of new words (Beck & McKeown, 1991; Dickinson & Smith, 1998; McKeown, Beck, Omanson, & Perfetti, 1983). These researchers also stated that a variety of demonstrations have indicated that directly teaching vocabulary to children can increase reading comprehension.

Explicit comprehension instruction. Comprehension is the true goal of reading (Lyon, 1998; Lyon & Moats, 1997; Wilson, 2000). Therefore, students need explicit comprehension instruction. Reading comprehension strategies are active mental strategies children can use to enhance their understanding of text or repair their understanding if it breaks down while reading. Students' ability to comprehend text is influenced by many of the same things that determine their ability to understand oral language (Gough, 1996). Knowledge of word meanings (vocabulary), knowledge of specific content domains, knowledge of grammar and syntax, and thinking and reasoning ability influence children's ability to understand both oral and written language. Comprehension strategies are only one of several factors that influence how well children can construct meaning from text. For instance, comprehension cannot be achieved without the accurate and fluent decoding of single words (Mather, 1992;

Wilson, 2000). However, a significant amount of information is available about the strategies that active, purposeful readers use to enhance their understanding of text (Pressley & Allington, 1999). Thus, this knowledge can be applied in the design of instructional interactions that stimulate the use of these strategies in students to increase reading comprehension (Rosenshine & Meister, 1994; Rosenshine, Meister, & Chapman, 1996). Instruction in specific comprehension strategies also has been shown to be an effective way to increase reading comprehension in children who have reading disabilities (Mastropieri & Scruggs, 1997).

A coherent instructional design. Finally, these instructional strategies in the components detailed must be integrated within a coherent instructional design. The research literature recommended explicit, direct instructional procedures to teach phonemic awareness (Torgensen & Mathes, 2002), teach phonics (Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2002), build reading fluency (Meyer & Felton, 1999), teach many vocabulary words (Tomesen & Arnoutse, 1998), and stimulate the growth of active comprehension strategies (Duffy & Roehler, 1987). Helping teachers increase the level of explicitness in their teaching is one of the challenges that must be met by professional development. A much deeper and more extensive knowledge of language structure and reading processes is required to deliver explicit, direct instruction than is required for less explicit instruction that assumes children will learn productive reading skills from simple exposure to interesting and meaningful reading and writing assignments (Moats, 2000).

35

However, the key to successful reading instruction lies primarily in the hands of teachers, which is some cause for concern (Evers, 1998; Gaskins, Ehri, Cress, O'Hara, & Donnelly, 1996). This concern has been precipitated by various studies indicating some teachers are not well prepared to teach reading (Ehri, 2002; Evers, 1998). Many lack sufficient knowledge about the alphabetic system and phonemic awareness and therefore cannot teach these components to their students (Ehri, 2002; Moats, 2001). These teachers must have a chance to gain additional knowledge and experience in these areas and feel comfortable imparting that knowledge. It is critical for teachers to understand and be able to teach all of these component reading skills, because to read adequately, children must develop the ability to easily decode the written symbols of language into words, as well as the ability to comprehend the text (Emmitt & Pollock, 2002). Although decoding can take place without comprehension, comprehension cannot take place without decoding (Emmitt & Pollock, 2002; Guthrie & Wigfield, 1997). Moreover, if these skills are deficient, problems develop in subjects besides reading. For example, for students to achieve in math, science, English, history, geography, and other subjects, reading skills must be developed to the point that they are automatic (Foorman et al., 1998). In other words, students should not struggle with word recognition when they should be reading quickly for comprehension (Loveday & Simmons, 1988). Thus, teachers should be well versed in reading instruction components.

Professional Development

Teacher preparation is the key to teaching American children to read, to learn from reading, and to enjoy reading (Lyon, 1997). Therefore, teachers must have sufficient knowledge to ensure literacy for all and be equipped to help students at all developmental levels (Lyon, 1994; Rosenholtz, 1985). A number of research studies have suggested that ongoing teacher development programs, such as in-service training, continuing education, and district support for teachers to obtain advanced degrees, can significantly aid teacher performance and ultimately student performance (Bair, 1992; Cummins, 1986; Johnson, 1994). This professional development plan should focus on scientifically based reading research and foster inclusive instructional planning for the needs of all children.

According to the National Reading Panel (2000), the knowledge and abilities important for competent delivery of balanced, comprehensive reading instruction must be defined and should form the basis of the reading curriculum for teachers (Lyon, 1999; Moats, 2001). Additionally, teachers need ongoing professional development with topical continuity, practical application, and opportunities for collaboration with peers (Guthrie & Wigfield, 1997; Rosenholtz, 1985). These professional development experiences should be linked to continuous in-class coaching (Duffy-Hester, 1999; Hayes, 1991). Well-prepared teachers who feel confident that they can achieve results are likely to stay in the profession, experience

a high degree of job satisfaction, and rebuild respect for public education (Humphrey, 2001; Kozol, 1991).

Because of the importance of education in society and the consequent impact of teachers on the lives of their students, teachers deserve no less than the knowledge, skills, and supported practice that will enable them to succeed (Cummins, 1986; Duran, 1989). For this reason, there is no more important challenge for education to undertake (August & Garcia, 1988; Blase & Blase, 1997). Because of the significance of reading to academic success, the benefits of ensuring teachers have a chance to learn and practice the best techniques for reading instruction are tremendous.

Thus, researchers have studied ways to improve teacher professional development and reading instruction. In 2002 the NICHHD formed the National Reading Panel to review and evaluate various approaches used in reading instruction. The panel conducted a 2-year study in which panel members reviewed over 100,000 studies on how students learn to read. The National Reading Panel identified the most important components of reading instruction as alphabetic skill (both phonemic awareness and phonics instruction), fluency, comprehension, teacher education, and computer technology. Findings of the National Reading Panel report were important in the development of Reading First, the literacy component of President Bush's No Child Left Behind Act of 2001. Reading First is a state grant program that will provide approximately $6 billion over the next several years to fund scientifically based reading improvement efforts (No Child Left Behind Act, 2002).

State Efforts

The Reading First Grant Program is a central part of the federal No Child Left Behind Act of 2001. Reading First's primary goal was to improve reading instruction and student performance in kindergarten through Grade 3. However, as of March 2003 only half of the 50 state plans had been approved for funding. Under Reading First, high-need school districts are identified and provided with funding and intensive technical support to improve reading performance. To be eligible for Reading First funding, school districts must meet the following criteria:

1. Have the highest number or percentages of students reading below grade level in the state,

2. Include an Empowerment Zone or Enterprise Community designated by either the U.S. Department of Housing and Urban Affairs (urban areas) or the Department of Agriculture (rural areas),

3. Have a significant number of Title I schools, or

4. Have the highest number or percentage of Title I students in the state. Priority must be given to districts with at least 6,500 students and to districts where 15% of all students are living below the poverty level.

Many additional state-level reading initiatives are ongoing. Although they vary in approach, scope, and success, most share similar instructional concepts. According to the Education Commission of the States (1999), the most common strategies used by state programs are

1) preventing and intervening with reading difficulties; 2) imposing consequences for students who do not meet reading standards; 3) promoting or mandating particular reading approaches or programs; 4) providing additional or better data; 5) providing teachers with skills and knowledge; 6) setting standards, developing reading plans; and 7) assessing readiness for school. (p. 27)

Texas Reading Initiative

The goal of the Texas Reading Initiative is that schools have strong instructional leadership, diagnostic assessment of student reading skills, data-driven professional development, comprehensive core reading instruction based on scientific research, immediate intervention for students struggling with reading concepts, and systematic progress monitoring to ensure student success. The collective goal of the Texas Reading Initiative is the following:

1. Provide the scientific knowledge base for policy decisions and instructional practice at all levels of the educational continuum.

2. Foster the translation of new and emerging scientific reading research knowledge into effective, consistent instructional practice.

3. Support high-quality instruction, implementation, and administration. Monitor progress at the individual, classroom, school, district, region, and state program levels.

4. Intervene immediately, on the basis of student performance data, to maximize student success (National Reading Panel, 2000).

40

Texas uses a multifaceted approach for effectively disseminating its reading initiative training, materials, and support. The primary architect and manager of activities is the Texas Education Agency, led by the Commissioner of Education and the Office of Statewide Initiatives. The Office of Statewide Initiatives develops strategy and coordinates all Texas Reading Initiative activities in the state. It provides funding for research, professional development, diagnostic assessment, intervention support for students diagnosed with reading difficulties, and program evaluation activities (Texas Education Agency, 2004).

Summary

To improve reading proficiency in the United States, all schools across the country must commit to the basic principle expressed by Wheaton and Kay (1999): "Every child deserves that chance to succeed. Schools must join together, sharing successful practices and resources to create an environment where success is the norm—for every child" (p. 28). Reading proficiency is the cornerstone of literacy; and literacy is the cornerstone of student understanding, which translates into academic success. Student understanding and academic success are capstones in developing lifelong learners and critical thinkers. Lifelong learners and critical thinkers form the basic foundation of citizenship, democracy, liberty, and community (Irvin, 1998; Rasinki & Padak, 2000; Ruddell, 2000; Sweet & Anderson, 1993). However, many children may never learn to read without being taught with an organized, well-designed instructional approach. Research has identified certain

components of effective reading instruction programs; this study furthers knowledge in this area by examining an urban, diverse, middle school using an intensive reading intervention program to teach students with deficits in phonemic awareness and decoding skills. Chapter 3 presents the methodology of the study.

Chapter 3

Methodology

Introduction and Purpose

This chapter includes the research methodology and procedures that were used to approach the study of the eighth-grade reading intervention of diverse students reading two to three grade levels below their grade level. Without some kind of intervention, these students often seem to be left behind academically and ultimately socially. Part of the reason for this may lie in a critical theory paradigm that enunciates "how the social institution of school is structured such that the interest of some members and classes of society are preserved and perpetuated at the expense of others" (Merriam, 2001, p. 5). This concept will be discussed relative to implementation and success of reading intervention programs in public schools. The purpose of the study was to determine the efficacy of eighth-grade reading intervention program used at an ethnically, racially, and economically diverse urban middle school in central Texas. The following research questions guided this study:

1. Based on a range of data (pre- and posttest scores), what are the probable achievement effects of an intensive reading intervention program?

2. What are the perceptions of teachers and administrators about the effectiveness of an intensive reading intervention program for culturally diverse, low-SES, middle school students?

3. What do these data (perceptions and scores) indicate about the

implementation of an intensive reading intervention program (SRA), and what would

be the grounded theory of this particular case of program implementation?

Rationale for Method

The ultimate purpose of any knowledge in educational research is to provide a

basis for action, be it policy action, methods of teaching in the classroom, or

reforming the structure of the system and school attainments (Keeves & Lakomski,

1999). Popkewitz (1980) identified three paradigms that have emerged in the

educational sciences to give definition and structure to research practices: (a)

empirical-analytic (roughly equivalent to quantitative science); (b) symbolic, which is

qualitative and interpretative or hermeneutical inquiry; and (c) critical, which is the

application in research of political criteria relating to human betterment.

For this study a dual method or mixed method approach was deemed best for

the following reasons: (a) this approach allows for both empirical-analytic and

symbolic arguments relative to the adequacy and efficacy of the reading intervention

program under investigation; (b) it allows for both the collection of numerical data

easily analyzed statistically and the collection of qualitative data via interviews to

provide information not easily quantifiable; (c) it addresses the need for a qualitative

case study to focus attention on the context in which the intervention took place; (d) it

allows for the description of the uniqueness of this school's effort to meet the

individual needs of students; and (e) it encompasses the strengths of both quantitative

and qualitative research—whereas quantitative research seeks to isolate the effect of a single phenomenon on a situation, qualitative research is a emergent design that looks for an understanding of all the interrelationships that exist within the context of a naturalistic setting (Lincoln & Guba, 1985). What qualitative and quantitative data tells us may not necessarily be comparable, but together they produce different understandings of the social world, rather than constituting a "greater" truth or more well-rounded understanding of the world (Brannen, 2004). Great care is therefore needed when combining these approaches and in making claims for what they tell us over and above a single methods approach.

Qualitative Methodology

The backbone of qualitative research often lies in the interview process. Berg (2004) stated that interviewing allows for free interaction between the researcher and the interviewee and includes opportunities for clarification and discussion. Interviewing provides access to people's views of reality and makes full use of difference among people. Using qualitative research techniques such as interviewing, the researcher gains a deeper understanding of the significance of the phenomena being investigated (Lincoln & Guba, 1985, pp. 221–249). According to Lincoln and Guba (1994), qualitative studies look at the complexity of the issues and are primarily subjective studies based on observations, interviews, and analyses. Lincoln and Guba (1985) further noted that qualitative studies depend upon a primary methodology of naturalistic inquiry to further the understanding of specific phenomena. Naturalistic

inquiry places research in a natural setting, one that is not scientifically manipulated. Similarly, according to Eisner (1998), qualitative designs are employed when the purpose of a study is to understand the context in which a phenomenon occurs. This type of research is undertaken to discover the phenomenon from the perspective of those involved. Qualitative research in education allows understanding of what teachers do in their work setting. The purpose of this study was to understand how reading intervention closed the achievement gap of students reading two to three grade levels below grade from the perspective of the teachers, principals, and counselors responsible for the implementation of the reading program. Hence, the nature of the inquiry lent itself at least in part to the use of a qualitative, case study approach.

Yin (1994) described a case study as an "empirical inquiry that investigates a contemporary phenomenon within its real life context" (p. 23). Merriam (1998) defined a cast study as an "intense, holistic description and analysis of a single instance, phenomenon of social unit" (p. 27). Miles and Huberman (1994) further delineated cases to be both "individuals and more molar units meant to share several common characteristics" (p. 435). In this investigation, the cases involved teachers, principals, and counselors who provided reading instruction for middle school students who had been identified as having decoding deficits. The setting was an urban, Central Texas school district of culturally diverse students.

Description of Research Site

The School

This reading intervention program was conducted at an urban, Central Texas middle school. The school population was 423 and consisted of students who were 50% Hispanic, 35% African American, 10% Asian American, and 5% White. The school used a block schedule system. A block schedule system uses seven periods a day comprised of 50-minute time blocks. Students attend all their core classes—English, math, science, and social studies—daily. For the purposes of the reading intervention program, a zero period was created at the beginning of the school day, which was 45 minutes long. A few minutes from each of the eight periods was shaved off to create the zero hour. The school failed the TAAS 3 years in a row (1999, 2000, and 2001) and was designated by the Texas Education Agency as Low Performing in reading. As a result, before the test results were released, the school district central office began plans for the reconstitution of the school and designated it as a blueprint school to improve the quality of education for all students.

Description of Interviewees

Participants	Position	Description
1	Teacher/ Counselor	M. Ed, 17 years as an educator
2	Teacher/ Counselor	M. Ed, 25 years as an educator
3	Teacher/ Administrator	Ed. D, 15 years and educator
4	Teacher. Special Education/ Counselor	M. Ed, 20years as an educator

The Reading Program

Science Research Associates (SRA) is a reading program that is structured with a direct teaching model. SRA Corrective Reading is a complete core program that uses direct instruction methods to help students master the essential decoding skills they need to read. Corrective Reading includes two separate programs, one for decoding and one for comprehension. Students are placed in either or both according to their need. This research focused on the decoding aspects of the SRA program (phonemic awareness, explicit phonics, letter–sound relationships, blending, and fluency building).

In Corrective Reading the teacher makes clear to students how the phonemes in words map onto letters of the alphabet. This explicit phonics is an important part of SRA's success. Several studies have found explicit phonics effective for low-performing, at-risk, or special education students of varying ages (Kamps & Greenwood, 2005; Williams, 2001). Because explicit phonics instruction seems to help, one can conclude that a reading program that teaches letter–sound

correspondences explicitly, such as Corrective Reading, can better meet the needs of all students. The goal of Corrective Reading is to accelerate learning so that students who have fallen behind can catch up with their peers.

SRA Corrective Reading program has two major strands and four instructional levels. The strands are Strands 1 and 2, the levels are Levels A, B1, B2, and C. These are listed below.

Level A1, Word-Attack Basics: Decoding A, teaches nonreaders sound–spelling relationships explicitly and systematically and shows students how to sound out words. There are 65 lessons. Word-attack skills include phonemic awareness, sound–symbol identification, sounding out, regular and irregular words, and sentence reading.

Level A2, Thinking Basics: Comprehension A, teaches basic reasoning skills that form the framework for learning information. There are 60 lessons. Thinking basics include deduction and induction, analogies, vocabulary, true–false, recitation, and information.

Levels B1 and B2 teach decoding strategies. Decoding is refined and then applied to more sound–spelling patterns and difficult words. These skills are applied in stories designed to correct mistakes the poor reader typically makes. There are 65 lessons for Levels B1 and B2 decoding. Decoding strategies include letter–word discrimination, sound–letter combinations, word endings, and story ending literal and inferential reasoning.

Levels B1 and B2, Comprehension Skills: Comprehension B, teach the many separate skills necessary to read content-area textbooks. These are also the skills students need to respond to written questions that involve analogies, deductions, and rule applications. Level B1 has 60 lessons, and Level B2 has 65 lessons. Comprehension skills, more advanced reasoning, handling information, vocabulary, analyzing sentences, and writing skills are taught.

Level C1, Skill Applications: Decoding C, bridges the gap between advanced word-attack skills and the ability to read textbooks and other informational material. There are 125 lessons. Skill applications include additional sound combinations, affixes, vocabulary development, reading expository text, and recall of events.

Level C2, Concept Applications: Comprehension C, teaches students to use thinking skills independently. They move from basic reasoning tools to higher order skills. There are 140 lessons. Concept applications include organizing and operating on information, using sources of information, and communicating information.

Corrective Reading comes with Teacher Presentation Books that provide explicit step-by-step lesson plans designed to accelerate learning. The lesson began with a word-attack skill, which is an oral exercise consisting of word pronunciations. For example, Task A, *"I'll say some words that you're going to read. Say them just the way I say them. First word: slam. Say it, (student). Yes, slam."* The next exercise was on letter sounds, which is an oral exercise consisting of letters pronunciations. For example, Task A, *"I'll say a letter you're going to say."* Say the letter makes the sound.

The next exercise was vowel sounds, which is an oral exercise consisting of vowel sounds. For example, Task A, *"I'll say some vowel sounds that you're going to read. Say them just the way I say them. First vowel sound: i. Say it, (student). Yes, i."*

The next exercise was on sound combinations, which is an oral exercise consisting of word sound combination. For example, Task A, *"I'll say some sound combination that you're going to read. Say them just the way I say them. First sound combination: th. Say it, (student). Yes, th."*

The next exercise was group reading, which is an oral exercise consisting of students reading sentences. For example, Task A, *First "Everybody read each set of sentences." Then, I'll call on individual students to read the sentences. Finally, I'll have students read the set of sentences again and see if they can do it without making more than 3 errors.*

As students progress thru the lesson, the tasks become more complex and the group reading passages increase in length and difficulty.

Teachers' Guides summarize strategies taught at each level, provide tips for teaching specific skills, and show how to motivate students using the built-in point system. Decoding Student Books are integrated with daily lessons, offering stories. Decoding Workbooks provide additional practice. Comprehension Workbooks have exercises that improve comprehension, vocabulary, critical thinking, and writing skills. The specific intervention used and described in this research was SRA Corrective Reading Decoding Strategies B. This intervention was conducted because

51

the school district had targeted low-performing schools for improvement. This decision was made at the district level, and the reading invention program was used school-wide.

Group assignment. The Flynt Cooter test was administered to all students prior to the onset of the intervention program to gather accurate data regarding students' reading levels. Additionally, students were given the Reading Level Indicators as an additional measure to ensure reliable and accurate information regarding students' reading performance. Scores on the Reading Level Indicators (RLI) were used to group students. The RLI is an untimed, group-administered, norm-referenced reading screener with two parallel forms. It is primarily used to identify individuals reading at a second- to sixth-grade level. The RLI also can identify functional nonreaders (those reading below the grade equivalent of 1.8). The RLI is a quick screening measure of reading ability with grade equivalents developed on a nationwide sample of 17,727 examinees at 83 testing sites and has high internal consistency and reliability. RLI materials were designed to be appropriate for junior high/middle school and high school students.

The results of the test were used to place students in reading groups structured by instructional levels. The tests were administered by two educators with more than 25 years of teaching experience between them. Based on test data from the Flynt Cooter and the RLI, those students who scored three or more grade levels below grade were placed in the SRA program, where they received another placement test to determine placement levels within the program.

Data collection. Pretest data were collected prior to the start of the intervention; posttest data were collected at the end of 53 sessions in January 2002. Only data from eighth-grade student were used in this analysis.

Teacher preparation for intervention. All teachers were trained by an SRA representative during 3 all-day Staff Development Days. A variety of topics were covered during the training sessions, including how to conduct the assessment, how to monitor progress, how to implement the program, using SRA materials correctly, how to structure the class, support for possible behavioral problems, and names of students in the class.

Intervention design. Intervention consisted of utilization of the SRA Corrective Reading program Decoding Strategies B1 and B2. The focus for this research study was eighth-grade students who were reading two to three grade levels below normal. Students were ability grouped, with one teacher assigned to each group of eight students. Students had their own booklet of materials for the lessons. The intervention met daily at zero hour (8:30–9:30 a.m.), which was the first period of the day created just for the intensive reading program. Students in each group received the same 45-minute intervention, five times a week, for a total for 55 sessions over a 12-week period.

Materials. The teachers used materials provided by the SRA Corrective Reading program. The instructor and the students all had a copy of the program. The SRA Corrective Reading book used was called *Word-Attack Basics*. A direct instruction method was used to help students master the essential decoding and

comprehension skills they needed not only to read well, but also to learn well. A scripted presentation approach used a brisk pace, carefully chosen exercises and examples, and other special presentation techniques to engage learners. Complete learning materials included student books, workbooks, teacher presentation books, and guides that provided everything from placement tests to a management system.

Teacher presentation books provided explicit step-by-step lesson plans designed to accelerate learning. Teacher guides summarized strategies taught at each level, provided tips for teaching specific skills, and showed how to motivate students using the built-in point system. Decoding student books integrated with daily lessons offered a variety of items to entice the learners. Decoding workbooks provided additional practice so skills could become automatic.

Reading-Level Indicator. The technical information of the test is the Reading-Level Indicator; it can be used as a screening instrument for identifying students in need of more diagnostic information in reading skills. Sentence Comprehension items require the examinee to determine the single word (target) that is missing from a sentence based on context, vocabulary knowledge, and part of speech. Four types of sentences were used in the Sentence Comprehension items: simple, compound, complex, and complicated. Vocabulary items were designed to measure vocabulary knowledge. The examinee must read a phrase or sentence in which the target vocabulary word is in color (purple or blue) and then pick the meaning of that word from a list of four or five response choices. The normative information is based on 17,727 examinees tested at 83 sites nationwide. The sample includes approximately

54

equal numbers of female and male students at each grade level. To facilitate racial/ethnic bias analysis, the sample was designed to include sufficient representation of the major racial/ethnic groups. The goals of this phase were to obtain a good range of item difficulties and to examine and eliminate, if necessary, poorly discriminating items. Item calibrations and tests of goodness-of-fit to the Rash, or one-parameter, model were done using the Wright and Linacre (1995) BIGSTEPS program. Items were evaluated both qualitatively and quantitatively for bias. The reliability information provides substantial evidence for a high degree of consistency in the measurement of Reading-Level Indicator scores. The alpha reliabilities were the same for each form (purple and blue), ranging from .82 to .93. The validation of a test determines how well the test is measuring what it is intended to measure. The Reading-Level Indicator purports to be only a screening instrument of reading ability. Reading-Level Indicators do indeed sample key elements of reading ability. Sentence Comprehension items require that students read and comprehend sentences as a unit; vocabulary items require knowledge of the meaning of words. Both skills are undeniably basic elements of reading ability.

   Contextual description. The district implemented this reading program in hopes of increasing student decoding ability and thus reading performance and TAAS scores. No special education students or English language learners were used in the study.

Qualitative Design

Qualitative Data Collection

This study used a qualitative methodology to examine the impact of the program. Two administrators responsible for supervising and evaluating the program as well as 3 teachers implementing the program were interviewed. Topics explored during the administrator interviews included professional background; conceptualization of the reading program; and evaluation of the effectiveness of reading instruction, the reading instructor, and materials used for reading instruction. Interviews were audiotaped and transcribed. Tapes will be destroyed 2 years following the conclusion of the study. Interviews took place in the fall semester of 2005 and were scheduled for 1–2 hours. Two interviews were conducted to allow interviewees to check for accuracy of quotes. Interview questions can be found in Appendix A.

This study also utilized and qualitatively analyzed public documents. Lincoln and Guba (1985, p. 65) defined a document as "any written or recorded material" not prepared for the purposes of the evaluation or at the request of the inquirer. Documents can be divided into two major categories: public records and personal documents (Guba & Lincoln, 1989). To verify the nature of the intervention program that took place and the outcome, this study used public records that were created and kept for the purpose of "attesting to an event or providing an accounting" (Lincoln & Guba, 1985, p. 78). Public records can be collected from outside (external) or from

within (internal) the setting in which the evaluation is taking place. This study used internal records that documented student test reports pre- and posttest.

In general, methods of data gathering in qualitative research are analysis of public and private documents, observations, interviews, and use of journal articles and field notes. Samples to be studied are selected with a purpose in mind, and case study reporting modes are generally used. Grounded theory was used starting with the data and inductively developing a theory that fits the data. Once this step has been accomplished, it can then be said that whatever "grounded theory" was developed fits as least one data set. Strauss and Corbin (1998) explained that a successful grounded theory begins with a set of methodical steps that if carried out correctly, should guarantee the development of a good theory. Unlike the traditional scientific view, this model suggested that the quality of a theory is related to how it is derived and crafted, along with a case study approach. The case study approach is basically a qualitative approach that seeks to further the understanding of the uniqueness of a situation, but one that may also be transferable to a different context if that context is parallel (Stake, 1995).

Qualitative Data Analysis

Merriam (1998) explained that a case study is an exploration of a case over time through detailed, in-depth data collection involving multiple sources of information that are rich in context. The context in which this study was conducted was a schoolwide, eighth-grade reading intervention. Documents considered for this

study included reading material, material related to reading instruction, and pretest and posttest documents.

The recorded and documented interviews were coded to determine emergent themes. In order to identify common themes, the following procedure was used. When a strong statement or opinion was given by an interviewee, a search was conducted in the data from other interviewees to determine if each of the others had made similar statements. When several interviewees agreed on the same subject, that subject was deemed a common thread and included in further data analysis and discussion. Using Strauss and Corbin's (1998) grounded theory approach, the coding process began after the initial interviews were completed and continued until the final interviews were conducted. Data collection and analysis is an ongoing process that extends to the end of the research process (Merriam, 1998). Interview data were coded using short notes and colors assigned to various aspects of the data for easy retrieval. The coding scheme was simple, identifying themes that could be illustrated with numerous incidents, quotes, and so on (Strauss & Corbin, 1998). The first level of coding, open coding, included each interview, sets of field notes, and documents. These varied documents had identifying notation so the information could be accessed as needed for both the analysis and the presentation of the findings. Codes that appeared to relate to the same phenomenon were grouped into categories. Names for codes and categories came from three sources: (a) research literature, (b) phrases used by the research participants themselves, and (c) research notes during interviews. In the second level of coding, called *axial coding* by Strauss and Corbin

(1990), the codes and categories were compared and checked against one another, this time searching for connections between categories with a view to detecting emergent themes. The alternate use of open and axial coding occurred simultaneously throughout the analysis process. The third and last level of coding based on and Corbin's (1998) selective coding was aimed at removing categories that did not bear significantly on the study objectives.

The coding process as a whole was guided by the desire to gather the knowledge and understanding of how the research school was successful in raising the reading levels for students who were two to three levels below grade in reading. Various broad descriptions of code types drawn from Hernandez (2003) were used in the analysis process to draw attention to the most pertinent data. Codes were about the following topics:

1. Operational practices,

2. The rationale for implementation,

3. How implementation occurred,

4. Pride or efficacy,

5. Support,

6. Equity,

7. Accountability,

8. Educational implications,

9. Measurement of progress, and

10. Roles and responsibilities.

These codes provided a framework for analysis (Hernandez, 2003).

Trustworthiness, Reliability, and Validity

The use of public records is helpful in better understanding the project participants. This information is particularly useful in describing student academic performance and in identifying student strengths and weaknesses. Trustworthiness and validity of the case study were established by testing for credibility, transferability, dependability, and conformability (Lincoln & Guba, 1985, 1994). Credibility refers to the questions posed and how the responses match reality. Transferability addresses the extent to which the findings can be applied to other situations. Dependability refers to the extent that, under similar contexts, the phenomena could be replicated. Conformability is related to the degree a researcher remains unbiased (Merriam, 1998).

Further, validity in qualitative research "has to do with description and explanation and whether or not a given explanation fits a given description" (Janesick, 1994, p. 216). Lincoln and Denzin (2001) described validity as the findings' being sufficiently authentic or trustworthy that one may act on the implication. Hence, validity deals with the question of how well research findings match reality. Audit trails and member validation techniques have been suggested as methods to ensure both validity (Janesick, 1994) and reliability (Merriam, 1998). Other methods posed to ensure validity are prolonged engagement and persistent observation (Janesick, 1994; Lincoln & Densin 2001). This investigation used the

60

following strategies to insure both validity and reliability: triangulation, member checks, and identifying and clarifying the researcher's bias. Merriam (1998) indicated that an investigator can use several basic strategies to ensure internal validity, noting that the triangulation method uses "multiple investigators, multiple sources of data, or multiple methods to confirm the emerging findings" (p. 169). Merriam (1998) further stated, "Especially in terms of using multiple methods of data collection and analysis, triangulation strengthens reliability as well as internal validity" (p. 172). Eisner (1998) referred to the triangulation process as "structural corroboration," which is a process through which "multiple sources of data are related to each other to support or contradict the interpretation of evaluation of a state of affairs" (p. 110). One of the strengths of a qualitative study is the opportunity to use many different sources of evidence to provide multiple measures of the same phenomenon.

Another method employed in this study to ensure validity is member validation, in which the data are taken back to the interviewee to make sure that the interviewer understood and properly recorded the interviewee's intended statements. Interviewees had opportunities to clarify their position. This member validation occurred after the interviews had been conducted as well as during the interviews. The investigator gave the transcribed interviews back to the participants for review, comment, and correction. This helped ensure that data collected during interviews were trustworthy in recording what interviewees intended to convey.

This study used a dual methodology to examine the successful reading intervention program at a Texas middle school. In addition to the qualitative methods

described, quantitative methods were used to determine relationships between reading intervention and test scores, as detailed in the following sections.

Quantitative Methodology

Quantitative Data Collection

Various quantitative data were obtained from the Central Texas public school district electronic database: test scores, data pertaining to the 2001–2002 reading intervention program described earlier, descriptive data about the study school, and demographic data on students and staff. These were considered secondary data because they were originally collected by the district. The data were collected, verified, and archived by the district. Secondary data such as these provide a framework for research questions and validation of study findings. The reading intervention program data were stored in a Microsoft excel program and gathered by the Reading Specialists on the study campus. The data were entered and checked for accuracy by both of the reading specialists.

Quantitative Data Analysis

Reading-level tests conducted before and after the reading intervention program provided a quantitative measure of students' reading ability before and after the reading intervention program was implemented. Descriptive statistics such as standard deviations are a meaningful part of data analysis (National Science

Foundation, 1993) and were calculated. As with all quantitative data, test scores

provide a numerical measure of what is going on in reality. Another way of putting it

is that quantitative data represent reality based on a numerical and measurable scale.

A *t* test was used to analyze differences between pre- and postintervention conditions

and test scores to determine whether they are statistically different from each other. *T*

tests are used to test for differences between two means. This test would show the

growth against baseline (preintervention) test scores. For this study probability levels

of $p < 0.05$ were considered significant. According to Cohen (1988), a significance

level around .02 is considered small, around .05 is medium, and greater than .08 is

large. The Statistical Package for the Social Sciences (SPSS, 1999) software was

employed for data entry, manipulation, and analysis. SPSS is useful in handling

statistical analyses that focus on the interpretation of the output to make inferences

and predictions. Descriptive data as well as test scores for eighth graders were

analyzed.

Inferential statistics would be employed if analysis revealed a difference

between preintervention and postintervention test scores (Cronbach, 1982).

Differences between the preintervention and postintervention scores were considered

significant if the probability of the observed result happening by chance was less than

0.05 (or odds of less than 1 in 20). If probability values were higher, differences

would be considered not significant (Lofland & Lofland, 1995). This technique is

consistent with Miles and Huberman's (1994) advice that any inferred conclusion

from a sample data to the population from which the sample is drawn must be expressed in a probabilistic term.

Inferential statistics can be used for explaining a phenomenon or checking for validity of a claim. In these instances, inferential statistics is called *confirmatory data analysis,* which was used throughout the research analysis. Confirmatory methods use ideas for probability theory in the attempt to answer specific questions. Probability theory and statistics are important in decision making and provide a mechanism for measuring, expressing, and analyzing the uncertainties associated with demonstrating the effectiveness of the reading intervention program.

Trustworthiness, Reliability, and Validity

According to Kachigan (1986), if the raw data are not meaningful, what possible meaning can the summary statistics have? Therefore, Kachigan recommended that the reliability of data measurements be the first question asked of any quantitative data analysis. With a little foresight, most data collection schemes can be designed to permit the determination of the reliability of the measurements. Kachigan and Srivastava and Carter (1983) concurred that validity means the extent to which measurements reflect what they are intended to reflect, or what the researcher claims they do. The reading intervention program for eighth graders was intended to increase their reading; therefore, the program has validity only if it demonstrates having done just that. However, data demonstrating such efficacy must be reliable. In the case of pre- and postintervention testing, raw data are assumed to

be reliable based upon the following. Teachers were present during testing to ensure that cheating did not take place. Tests were collected and graded by professionals. Reading specialists entered data into an electronic database. Entered data were then rechecked for errors. Data were archived in a secure database, accessible only with district permission. Sample sizes were large, and the larger the sample size, the closer one gets to an approximation of the reality of a population as a whole.

Limitations of the Study

This study has a number of limitations that should be considered. First, this study did not include a comparison group of students with reading difficulties. Because there was no comparison group, the study did not prove that the reading program increased reading skills or scores. On the other hand, the quantitative data indicates that results can provide evidence. Second, although the sample size was large enough to make inferences, a sample size in the thousands would have been much better in terms of providing a more statistically sound basis for conclusions. Third, these results may apply only to schools with high culturally diverse enrollment. Further, different socioeconomic conditions may facilitate different results in schools with much smaller culturally diverse percentages. The study was a single case study and cannot be generalized to other schools. Data from a number of urban and suburban schools would have been useful in drawing more generally applicable conclusions about the intervention program. Similarly, the study is a snapshot in time. Data collected over a number of years and grades could help strengthen the results.

65

Absent students are a self-selected group, so results only apply to students who were there for both pre- and posttests. Additionally, the individual teachers present at that time could have been responsible for the success the program enjoyed. A different set of teachers or key personnel could have made a significant difference in the efficacy of the intervention program. Additionally, qualitative input was limited to a few administrators and teachers. Hence, results should be repeated under a wide variety of conditions before widespread acceptance is fully warranted. The quantitative data are useful just for the study school and students. Generalized inferences could be made much more valid with increased sample sizes for both students and schools.

Summary

The study was designed to test the efficacy of an intervention program used to improve reading levels of urban, eighth-grade students whose reading skills had fallen two to three grade levels behind. The study intervention program was conducted at a Central Texas middle school with a predominately culturally diverse student enrollment. Both quantitative and qualitative methods were used to develop an understanding of the intervention program's usefulness. Quantitative methods included pre- and postintervention testing of reading skills scores. Although the study has some limitations in terms of sample size, control treatments, and applicability to a wider population, results can provide a basis and a framework for other studies. Qualitative methods included interviews with teachers and administrators as well as

66

analysis of school and school district documents. Further, this study demonstrates the

potential for successful middle school intervention programs.

Chapter 4

Results

The purpose of this chapter is to present analysis of the data collected for this study. This chapter includes a review of the research questions, a description of the population and sample, results of the data analysis, and a summary of the findings. Results are presented for each research question, first qualitative data and then quantitative data.

Review of Research Questions

1. Based on a range of data (pre- and posttests), what are the probable achievement effects of an intensive reading intervention program?

2. What are the perceptions of teachers and administrators about the effectiveness of an intensive reading intervention program for culturally diverse, low-SES, middle school students?

3. What do these data (perceptions and scores) indicate about the implementation of an intensive reading intervention program (SRA), and what would be the grounded theory of this particular case of program implementation?

Results for Research Question 1

Research Question 1 was the following: Based on a range of data (pre- and posttests), what are the probable achievement effects of an intensive reading

intervention program? Results of paired *t* tests used to analyze pre- and postintervention test scores are presented below. As explained in chapter 3, the SPSS statistical package was used to conduct the analyses. Pre- and posttest composite RLI scores (Sentence Comprehension and Vocabulary subtests) as well as the mean grade level were analyzed.

Composite Test Scores

Results of the analysis indicated significant statistical differences ($p < 0.001$) between pre- and postintervention RLI composite test scores (see Table 1). Pre- and postintervention composite mean scores also reflected a gain in test results (preintervention mean = 22.23; postintervention mean = 24.55; see Figure 1). Although the increase in mean scores was not drastic, it was statistically significant. Data suggested students were progressing at a normal rate and were no longer falling further behind.

Table 1

Results of a Paired T Test Comparing Pre- and Posttest Reading Level Indicator
Scores

Variables	Mean	Sample size	Standard deviation	Significance
Pretest	22.23	108	4.921	
Posttest	24.55	108	5.500	.000*

Note. Test scores represent the composite scores on two subtests, Sentence
Comprehension and Vocabulary. The total number of questions for the two subtests
was 40 (20 questions per subtest). The highest possible score for each subtest was 20.
* Statistically significant at alpha = 0.05.
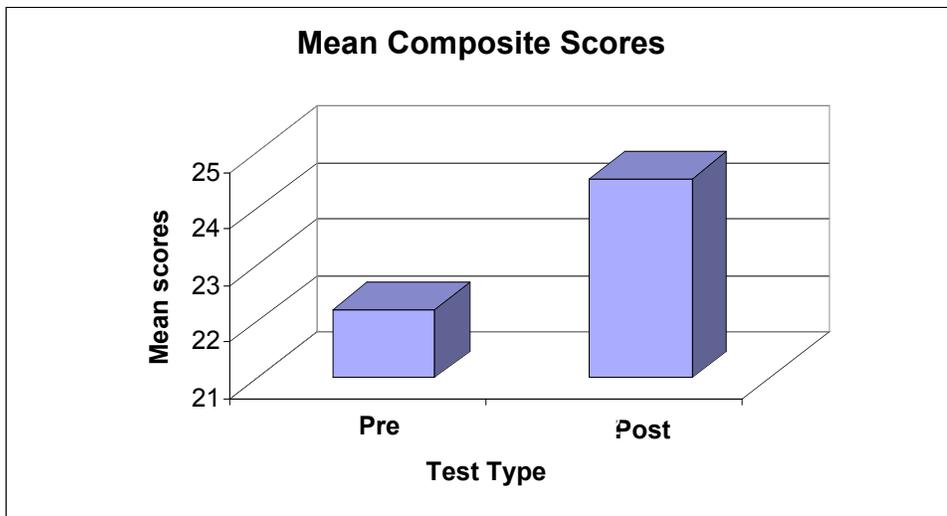
Figure 1. Pre- and posttest Reading Level Indicator mean composite scores.
Composite scores are from two subtests, Sentence Comprehension and Vocabulary.

Subtest Scores: Sentence Comprehension and Vocabulary

When the RLI subtest scores were examined, results were similar to the

composite test scores. The results for each of the subtests (Sentence Comprehension

70

and Vocabulary) were significant ($p < 0.001$). In each case postintervention scores were significantly higher than preintervention scores. According to both the Sentence Comprehension and Vocabulary subtests, students were progressing at near normal rates and were no longer falling behind (see Tables 2–3 and Figures 2–3).

These results are particularly significant in light of the fact that students 2–3 years behind had been progressing only at a rate 63–75% of the norm (based on the fact that after 8 years of elementary and middle school they had only progressed 5–6 grade levels in reading). However, following the reading intervention program, their rate of progress greatly increased (approximately 100% of the norm, based on the fact that they were increasing their skills at a rate of 1 month of instruction for 1 month of increase or more).

Table 2

T Test: Paired Two Sample for Means Procedure on Pre- and Posttest Sentence Comprehension Subtest of Reading Level Indicator

Variables	Mean	Sample size	Standard deviation	Significance
Pretest	11.36	108	2.631	
Posttest	13.05	108	2.496	.000*

Note. The Sentence Comprehension subtest has 20 items and a highest possible score of 20.
* Statistically significant at alpha = 0.05.

Mean Sentence Comprehension Scores
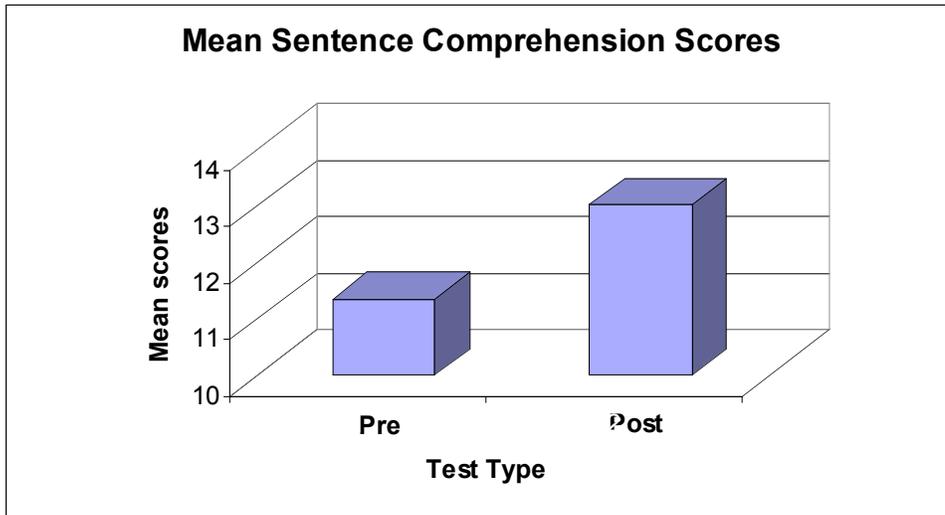
Figure 2. Pre- and posttest Reading Level Indicator Sentence Comprehension mean scores.

Table 3

T Test: Paired Two Sample for Means Procedure on Pre- and Posttest Vocabulary Subtest of Reading Level Indicator

Variables	Mean	Sample size	Standard deviation	Significance
Pretest	10.69	108	3.319	
Posttest	11.54	108	3.257	.000*

Note. The Vocabulary subtest has 20 items and a highest possible score of 20.
* Statistically significant at alpha = 0.05.

Mean Vocabulary Scores
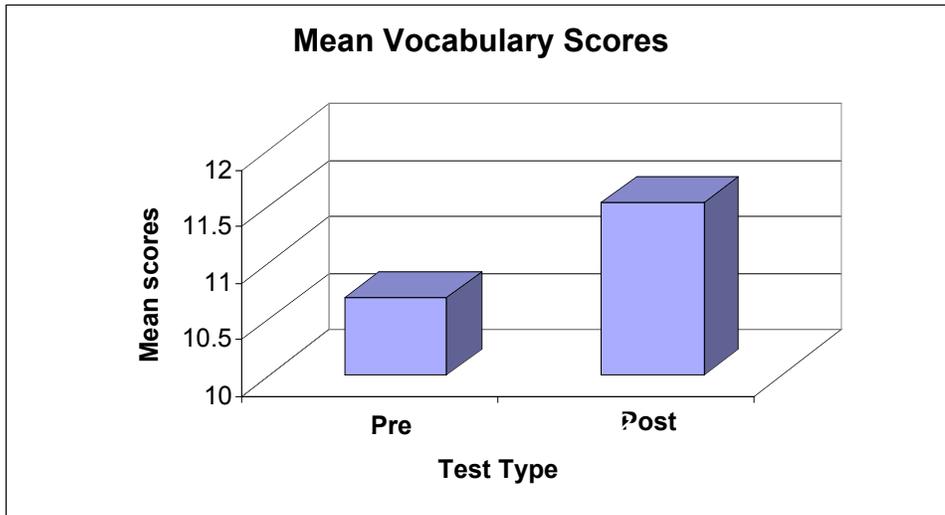
Figure 3. Pre- and postintervention Reading Level Indicator Vocabulary subtest mean scores.

Grade Level Scores

Trends in mean grade level scores were similar to trends in RLI scores. Results showed statistically significant differences between pre- and postintervention mean grade level test scores ($p < 0.001$; means of 3.719 and 4.336, respectively). These scores suggested even greater improvement than that indicated by the RLI mean scores. The RLI mean grade level scores suggested improvement among students, who seemed to have improved an average of 6 months in only 53 sessions, which is a significant acceleration in reading accomplishment (see Table 4 and Figure 4).

Table 4

T Test: Paired Two Sample for Means Procedure on Pre- and Posttest Mean Grade Level of Reading Level Indicator

Variables	Mean	Sample size	Standard deviation	Significance
Pretest	3.719	108	.9349	
Posttest	4.336	108	1.1525	.0900
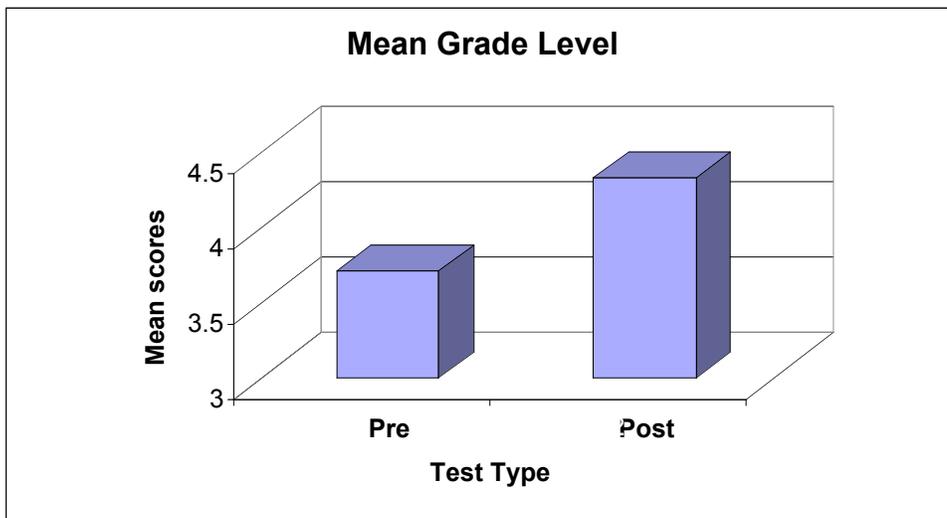
Figure 4. Pre- and posttest Reading Level Indicator mean grade level.

Grade Level Gains

Grade level gains were another important measure of success for the intervention program. An analysis of the distribution of grade-level gains in reading for students involved in the reading intervention program indicated that 44.4% of the students (*n* = 48) gained between 0.5 and 1.5 grade levels, 3.7% (*n* = 4) gained

74

between 1.6 and 2.5 grade levels, and 3.7% ($n = 4$) gained more than 2.5 grade levels

(see Table 5 and Figure 5). Fifty-two percent had improved at a rate at least twice as

fast as that expected of average students during the 53 sessions of the study. The

majority of students were increasing their reading skills at an accelerated rate, which

was encouraging to educators interested in the program.

Table 5

Gains in Grade Level on the Reading Level Indicator Between Pretest and Posttest

Categories of gain (number of grade levels)	Percentage of sample
.5–1.4 grade levels	44.4
1.5–2.4	3.7
2.5 or more	3.7

Gains in Reading Grade Level
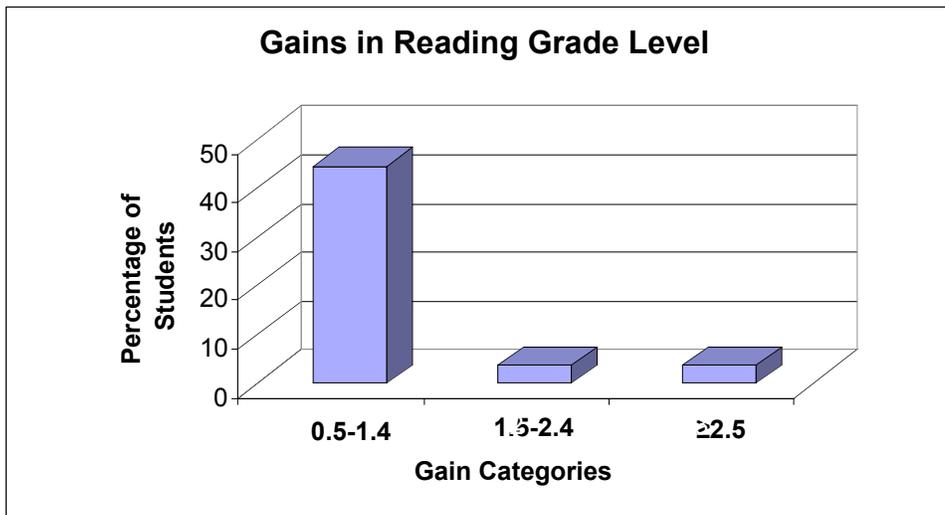
Figure 5. Changes in pretest and posttest Reading Level Indicator gains. This graph represents the percentage of study sample that made gains on the Reading Level Indicator. Gains are within the range of .5–2.5 or more grade levels.

Summary of Research Question 1 Results

Overall, the analyses of pre- and postintervention program reading scores indicated significant increases in reading scores after program implementation. This finding was particularly true of gains in vocabulary and comprehension at the $p <$ 0.001 level. These scores were indicative of real increases in reading skill; therefore, the results of this study indicated that implementation of the reading intervention program significantly increased the reading grade level of students in the program, including both their vocabulary and comprehension skills. The greatest gains in reading grade level were in the 0.5–1.4 grade level range (44.0% of the students). However, 7.4% of the students involved increased 1.5–2.5 or more grade levels in only 53 sessions (29.4% of a standard school year in Texas). These data are

promising in terms of offering educators in low-income, ethnically diverse school districts a means to increase the reading level of middle school students.

Results for Research Question 2

Research Question 2 was the following: What are the perceptions of teachers and administrators about the effectiveness of an intensive reading intervention program for culturally diverse, low-SES, middle school students? Three themes emerged from analysis of interview data: (a) comprehension, (b) organization, and (c) positive reinforcement.

Theme 1: Comprehension

The ultimate goal of reading instruction is improved comprehension. Without reading comprehension, a student capable of reading 2,000 words per minute is only running his or her eyes over the page. In general, instruction in phonics, vocabulary, and comprehension are accepted as essential elements in effective reading programs (National Reading Panel, 2000; Snow et al., 1998). Interviewees agreed that these elements were incorporated into the SRA reading intervention program. They also agreed that although many students came into the reading intervention program with little understanding of phonics, a limited vocabulary, and poor comprehension of what they read, the program seemed to have significantly helped these children read and comprehend what they read. Deficits in phonics skills have implications for reading comprehension.

Phonics. A number of authors have suggested that lack of phonemic awareness seems to be a major obstacle for learning to read (Vellutino, Scanlon, & Lyon 2000; Wagner & Torgeson, 1987). Interviewees in this project mentioned instruction in phonics as an important part of the SRA reading intervention program time after time. They stated that instruction in the use of basic vowel and consonant sounds, blends, and vowel combinations was an important factor in the success and effectiveness of the intervention program. The complex system of reading basic vowel and consonant sounds, blends, and vowel combinations is useless in and of itself unless the processes involved lead to individual word recognition, and if operated properly, also lead to reading comprehension of written text.

The first interviewee said, "Many of the students were missing an understanding of phonics and phoneme principles" when they entered the program. She added that these students were "two years behind grade level." Interviewee 2 agreed, saying that students "were reading one to two or three years below grade level" and they "still needed phonics and sounds and syllables."

Interviewees 3 and 4 concurred. Interviewee 3 complained that students entering the intervention program "had a difficult time reading"; in particular, they were having trouble with "the sounds." Interviewee 3 expressed the opinion that mispronunciation of words was a key factor in low reading success. She highlighted the need for instruction in phonics and linked phonics mastery with comprehension: "If you can't pronounce the word, you don't know what the word means. If you don't know what the word means, how can you comprehend what you are reading?"

Similarly, Interviewee 4 agreed students had difficulty pronouncing and

understanding words. She learned to identify words students did not know by

scanning through assigned pages or paragraphs and choosing difficult words. She

then used phonics to help them sound out a word's correct pronunciation.

According to interviewees, one of the basic elements of the Corrective

Reading program included daily work with phonics. Interviewee 2 confirmed that the

program started with phonics and then progressed:

> We started out with the vowel sounds and consonant sounds and the blends.
> We pronounced the words, spelled the words, and talked about the meanings
> of words and how the words can be used in sentences, and then we would
> actually use the word in sentences. We actually had a workbook to go along
> with each vowel sound or consonant sound. We had practice. We would have
> guided practice, and then we would have independent practice. After we did
> the vowel sounds and consonant sounds and the blends, then we went on to
> using the words in sentences and what the sentence meant.

The program progressed from basic sounds to elements that included

comprehension. Exercises included

> Using the words in sentences, and what the sentence meant, and then we
> would make sure that we would be using the words in context. ...Then we
> went on from sentences to paragraphs, to short stories, seeing how the words
> fit into a paragraph, also reading comprehension.

Although the program progressed in this manner, it must be emphasized that

interviewee comments suggested they did not think this progression would have been

possible without foundational work on phonics.

Vocabulary. Students began the program with very poor vocabulary.

According to Interviewee 1, as "far as vocabulary comprehension, it was a no-go.

…Their vocabulary was...awful." Similarly, Interviewee 4 four stated, "The kids in

79

my reading class were all two or more grade levels below in comprehension, and that was one of the things that they scored the lowest on at the very beginning, because their vocabulary was so weak."

However, increasing vocabulary was an important aspect of the reading intervention program. Interviewee 3 described his area as "vocabulary and working in the area of phonics." He "really emphasized a lot of drills in the area of vocabulary and…understanding." He had students write words, pronounce those words, define words, and build on words in the context of stories. He said teachers used repetitive reading and also defined vocabulary words.

According to Interviewee 4, at the beginning of the program, if the vocabulary was too hard, students would "just quit and ask somebody to tell them." However, one of the things she saw that the reading program taught them was "how to approach issues when they didn't understand how to reread it, how to figure it out, how to guess, and whether they were right or not."

Comprehension component. All interviewees agreed that at the beginning of the intervention program incoming students were having difficulty with reading comprehension. According to the majority of interviewees, students were often two to three grade levels behind where they should have been in terms of comprehension. Interviewee 2 said she had some students that were as many as five to six grade levels behind, and addressing each student's grade level was a "mammoth task.", Interviewee 3 said such low reading performance might have been at least partially attributable to the many Vietnamese and Hispanic students who were having

difficulties with English. Interviewee 4 said at the beginning of the program students had not developed tools for using context clues or other information in a paragraph to determine the meaning of a passage.

All interviewees agreed the intervention program addressed reading comprehension. Interviewee 2 said, "Reading comprehension was…one of the main things" addressed because instructors wanted to make sure that students understood what they read. Therefore, they worked on reading context clues, definitions, and word groupings. In her opinion, "Reading comprehension was a huge component in the SRA, B1 and B2 reading program." Similarly, Interviewee 3 explained that reading comprehension was addressed "extensively." He described it as a key area, stating,

> I think the majority of our classes were in the area of reading comprehension. If you can't comprehend what you are reading, then you can't learn, you can't understand what, the concept of what you are reading. I think that was a key. I think it was.

Interviewee 4 said work on comprehension became more frequent as the program went on. Initially, a greater percentage of time was spent laying the groundwork in phonics and vocabulary, but as these were mastered, more time was spent on comprehension.

Interviewees identified pronunciation and phonics, vocabulary, work recognition, practice, and motivation as factors often associated with low comprehension. If students are unable to pronounce a word, they are less likely to recognize that word. Unfortunately, even if a student pronounces a work correctly, if

81

vocabulary is limited, that student may still not understand the word's meaning. Both

phonics skill and vocabulary can increase with practice, but according to Interviewee

1, the students "don't ever read." This could be at least partially attributable to a lack

of motivation or confidence or both. Interviewee 4 said,

> What I saw in the kids is that a lot of times they just gave up. If it was hard, the sentence was hard, or the vocabulary was hard, they would just quit and ask somebody to tell them. Well, if you do that, you aren't going to retain it as well as if you actually put some work in figuring it out.

> Despite the difficulties and obstacles mentioned above, interviewees agreed

that the program had been successful. For example, Interviewee 1 said, "I think

overall it was a good program, and the majority of the kids advanced a level or two."

Interviewee stated,

> The overall success was just tremendous, because students gained one to two, maybe three years' reading level on the test. …When a student has not reached reading proficiency on a state level test and they get a no in that area, and that year they received a yes…it just makes them feel good on the inside and a feeling of accomplishment. It was recognized by the middle school, the faculty and staff and parents, but it was also recognized by the state of Texas. So the students were just ecstatic.

> Similarly, Interviewee 3 said of the program, "Evidently it was very, very

successful because the district...began to use it throughout. …Overall the program

was very successful." Interviewee 4 said, "For the kids that were actually attending

regularly it did wonders." She continued,

> By the end of the program they had learned how to do that [develop reading comprehension] because that was one of the things that it taught them how to do is to look for information in the reading material that would help them figure out a new word or help them understand. Even if they weren't exactly sure, they got chances to guess, and whether they guessed right, they would be told, yeah, that's right or no, that's not right. And those types of activities, by

the end of the program they could pretty much guess what something meant even if they had no idea really, which was a big improvement over, "I don't know."

In conclusion, interviewees agreed that students entering the intervention program were very far behind where they should have been with respect to reading skills and comprehension. The intervention program addressed reading comprehension by concentrating on the basics of phonics and vocabulary. Interviewees perceived that this approach had been successful in improving reading skills and comprehension. Although this perception cannot be supported by rigorous statistical tests because of the short duration and limited sample size (number and type of schools involved), based on decisions made at the district level, the success of the program seems to have been the prevailing view among administrators as well.

Theme 2: Organization

Interviewees indicated organization was a major factor in the implementation and success of the reading intervention program. Factors contributing to perceived organization of the program included teacher training, mandatory small group size, the scripted nature of the program, and scheduling changes at the school.

Teacher training. Interviewees agreed that teacher training on how to implement the reading intervention program took place before the program began. Interviewee 1 recalled training in December and January, before the second semester began. Interviewee 4 said the training kicked off with "a big, all staff in-service to go over the program, the overall strategies of the program, and the different levels and

what the purpose was." Interviewee 2 gave a slightly more detailed account when she

said the staff development for the program began with teachers' being given "the

purpose and the reason" for their training. She went on to describe how staff were

trained on different levels of the program, depending on what they were being asked

to do. Afterward, staff members had a chance to practice on each other to gain a

better feel for how to implement the program. According to Interviewee 4,

"Everybody received extensive training." Not only was information provided about

the program as a whole, but specifics also were provided about how to implement the

particular levels. Different aspects of the program have slightly different strategies,

depending on which level is being taught. Although the material was very specific,

Interviewee 4 claimed it was "very easy to follow."

Group size. The goal of teaching with small groups and same-ability groups is

to reduce the range of abilities between group members so that teachers can instruct

students who are functioning on approximately the same level and spend more time

with each student. Interviewees agreed that this was an important aspect of the

Corrective Reading program. Interviewee 3 commented that it all goes back to

> One-on-one with the teacher. They don't feel uncomfortable, because each of
> the kids are at the same level. Then one kid moves to this next level, then this
> other kid says, "I've got to get to this next level, too." So then they begin. You
> see the progression of these students.

Similarly, Interviewee 1 described the groups as very small compared to a normal

class size. She said, "We were all given eight or ten kids." Interviewee 3 concurred

with her class size report: "One thing we did is we assessed all 996 kids and assessed

84

the lowest level, a couple of grade levels below and the classes were less than 10 students. That's one thing I do remember."

All of the interviewees recalled that students were not grouped randomly but were ability grouped based on the results of preliminary tests. Interviewee 4 commented,

> You had a pretty homogeneous group that you could teach, and the program was scripted, and it was very methodical and worked through from the beginning of where the kids were to progress them up, depending on what particular level they were on.

In conclusion, it seems clear that the grouping of students made a strong impression on the interviewees. Each recalled clearly that students were ability grouped and either explicitly or implicitly expressed the view that this implementation scheme made students feel more comfortable, allowed teachers the opportunity to follow straight forward plans since all students in each group were similar in ability, and tended to increase student motivation.

Scripted nature of the program. The initial training mentioned above was necessary because the program was well scripted. The program provided specific information about implementation and strategies. According to the interviewees, this scripted organization made implementation easy. According to Interviewee 1, the "whole thing was scripted and I followed the script. That's what we were trained to do, and that's what we did." Although she seemed to be somewhat disturbed when she added, "It's not like I had any real leeway," other interviewees described that aspect of the program as a plus. For example, Interviewee 4 said, "The program was

scripted, and it was very methodical and worked through from the beginning of where

the kids were to progress them up, depending on what particular level they were on."

Indeed, even Interviewee 1 appeared to consider the scripted nature of the program an

attribute when she said the kids

> Knew everyday what they were supposed to do so after the first week or two; it was absolutely just bam, bam, bam, everybody knew what was going on. The kids would correct me if I happened to get things turned around, "That's not what we're supposed to do yet," so, they liked the structure, most of the kids did…it worked for them.

> Even day-to-day, practical, logistical aspects of the program were prepared

and scripted. According to Interviewee 2, the school orchestrated a dry run in

anticipation of program implementation:

> One day we just rang the bell and the students went to find where they were to go for their reading lessons. And then we just, we had an introduction. So we had one day where the students just went and found out where they were supposed to be, whether it was a space in a classroom or in the gym or wherever the reading class was being implemented. We had a dry run so people knew exactly where to go. Then we started the program. We had everything in place besides having the lists, and the bells were set so everybody started and ended at the same time. The students knew where to go.

> Interviewee 4 thought the scripted, repetitive nature of the program was an

asset in program implementation. She said, "It was hard at first. After that first week

or so…the kids got better at understanding the protocol because it was repetitive. The

lessons followed the same protocol every time."

School-wide scheduling and routine changes. In order to implement programs

such as SRA successfully, campus schedules and routines sometimes must be

restructured. According to interviewees, such restructuring was necessary. Block

scheduling was implemented at the middle school, adding a 45-minute reading period

for the intervention program. According to Interviewee 2, a special reading period

was easily incorporated into the school's daily schedule:

> It was very smooth. We had the bells set so it was a school-wide effort. The bells were set and for the reading time, and so when the bell sounded, I guess like at 9:50 every day, then everybody would go to their areas. The students were told in their language arts and reading classes and social studies classes, as far as where they were assigned. The classes were also posted on the walls. So every teacher had a copy of where the students were to be. So if the students did not know where to go, we had copies, all teachers had copies of where the students were assigned.

> Interviewee 3 was convinced that changing the daily school schedule by

adding a 45-minute reading program period was an important aspect of the program:

> One thing that I will say that I remember from that program is that we made sure that the kids got to the classroom that they were supposed to go to. …I think [it] was very, very important that we changed the schedule. We maximized the amount of instruction time. …I think that was very creative by the administrative staff and the reading specialist, instructional specialist, in creating that schedule.

> According to Interviewee 4, the schedule change was difficult at first. Not all

of the children or the staff adapted quickly. However, in the final analysis things were

running relatively smoothly in about a week. Interviewee 4 said,

> It took me a while. The kids weren't familiar with it, and it took them a while to get the pacing down. We had only 45 minutes, and that was exactly what we needed to finish it once you got your pace up. So needless to say, we didn't finish the lessons, and they were set up where you could, you needed to finish them in one day for it to be the most effective. But it was hard at first. After that first week or so things, where I got the pacing down and the kids got better at understanding the protocol because it was repetitive. The lessons followed the same protocol every time. Then once we got that going, it was pretty much, we hit the ground running. The bell rang and we were going.

In conclusion, data suggested interviewees considered teacher training a valuable asset to the program. Some interviewees indicated less than 100% teacher buy-in but enough teacher support, or at least willingness to try, for the program to run smoothly. Training allowed teachers to know exactly what to do from day to day. Additionally, the scripted, strictly outlined, detail-oriented nature of the program gave students and faculty alike confidence to move forward in a psychologically secure environment, free from worry about what to do next. Although a bit rocky at first, careful rescheduling added to student and faculty confidence, since everyone knew precisely what to do, where to be, and when.

Theme 3: Positive Reinforcement

Interviewees all stated that students understood that they could receive rewards for improvement. Positive reinforcement came in the form of both extrinsic and intrinsic rewards. Interviewee 2 explained in detail how faculty members were prepared to deliver positive reinforcement, including physical incentives:

> Oh yes, we had, students were very pleased with themselves because they could actually see and hear the progress they were making as we went from pronouncing words correctly to putting them into sentences to actually reading paragraphs and stories, and we had assessments tools at the end of each section so that they could see the scores and how they scored, and also we had incentives. …We had stickers and little small gifts and pencils, so when a student did well they were rewarded for their progress. …We also had pizza parties for the students. There were, when they got to a certain level, we had pizza parties. Students and parents were very excited because they had a chance to be rewarded for their good works.

As a result of working harder to obtain extrinsic rewards, students advanced more rapidly in their academic pursuits and received additional benefits in the form of public praise. One of the observed benefits of this type of positive reinforcement included improved self-esteem. Students could feel good about three things: They had received an extrinsic reward, they received praise from the instructor, and they knew their peers had seen them praised. According to Interviewee 3,

> I think one of the benefits the students received is self-esteem. I remember when kids were successful, we had one stretch where all the kids went through the entire program where they received, I remember we had a pizza party. The kids were well behaved. It's just hard to describe the self-esteem. Those kids were being successful. …They were reading books that you never thought they would read, like Shakespeare and things like that. Those are some of the benefits that I really saw, just their self-esteem was. They felt good about themselves. Their heads were high. It's hard to describe. It was a great thing to see the kids.

In conclusion, at least half of the interviewees believed positive reinforcement was a constructive force in the success of the reading intervention program. Students who otherwise had been discouraged and negative about academic achievement were excited and working hard to attain goals finally set within their reach.

Results for Research Question 3

Research Question 3 was the following: What do these data (perceptions and scores) indicate about the implementation of an intensive reading intervention program (SRA), and what would be the grounded theory of this particular case of program implementation? As indicated by the qualitative data presented above, the reading intervention program resulted in reading gains in vocabulary and in sentence

89

comprehension program implementation features such as organization and reinforcement procedures. Similarly, the results of the quantitative analysis of standard test scores (RLI and mean grade level) indicated significant gains in vocabulary, comprehension, and grade level. These increases were validated by concomitant increases in RLI scores.

Therefore, the following grounded theory was developed: Based on this specific case study, when a reading intervention program that emphasizes comprehension, organization, and positive reinforcement is implemented in a racially diverse, urban middle school comprised primarily of low-income African American, Hispanic, and White students, it is reasonable to assume that reading skills among these students will increase.

In keeping with the development of grounded theories in educational literature, this theory is grounded in the results of an analysis of both qualitative and quantitative data. In other words, it is based upon real data and holds true for at least the data set that was analyzed. Only future research will be able to determine if the theory holds true for a broader data set.

Chapter 5

Discussion, Implications, and Conclusions

The purpose of the study was to examine an urban, diverse, middle school as a case investigation in how to increase reading achievement for middle school students using an intensive reading intervention program. The study was conducted on two levels. First, quantitative data were collected to help document the possible effectiveness of the intervention program. Second, qualitative data were gathered by interviewing persons involved with program implementation. Interview questions were designed to determine the perceptions of faculty and staff who implemented the program. The perceptions of interviewees are discussed in light of educational literature, including recent studies. Then, results of quantitative data are discussed.

The study was guided by the following research questions:

1. Based on a range of data (pre- and posttests), what are the probable achievement effects of an intensive reading intervention program?

2. What are the perceptions of teachers and administrators about the effectiveness of an intensive reading intervention program for culturally diverse, low-SES, middle school students?

3. What do these data (perceptions and scores) indicate about the implementation of an intensive reading intervention program (SRA), and what would be the grounded theory of this particular case of program implementation?

As a result of interviews with the faculty and staff who implemented the reading intervention program for culturally diverse, low-SES, middle school students, three themes emerged: (a) comprehension, (b) organization, and (c) positive reinforcement. The themes are discussed in the following section.

Discussion of Quantitative Results

Quantitative data collected in this study are discussed in light of the second research question: Based on a range of data (pre- and posttest), what are the probable achievement effects of an intensive reading intervention program? Statistical analyses of pre- and postprogram reading tests used to compare the effect of the reading intervention program indicated significant postprogram increases in reading level indicators. Over half of the students tested gained 0.5–2.5 grade levels in only one semester. Although 48% showed no reading improvement, given the short amount of time the program was in effect, the history of slow reading improvement at the school, and the fact that some students were able to increase their reading level performance by almost three grade levels in only one semester, the results were extraordinary. An analysis of composite scores on the two subtests, Sentence Comprehension and Vocabulary, showed a 2-point mean gain overall for the lowest reading group, SRA Corrective Reading (Levels A, B1, and B2).

For many students reading the words is not enough to make understanding happen. Struggling readers need to learn specific ways to prepare for reading, to understand what they are reading while they read it, and to summarize and reflect on

92

what they have read (Vaughn et al., 2003). Consequently, instruction should include

direct teaching (Swanson et al., 2001), which is a major part of the SRA Corrective

Reading program. Data indicated an increase in Vocabulary mean scores from 10.69

before the program to 11.54 afterwards (see Table 3 in chapter 4) in 53 daily sessions

over a 3-month period. Students also showed a gain in the Sentence Comprehension

scores (see Table 2 in chapter 4).

Quantitative data showed a significant change in students' posttest scores

after intervention. The results of one subsection of the RLI (Sentence

Comprehension) using a paired t test showed a 2.31 grade level increase in the

comprehension of students after the implementation of the intervention program.

Overall, quantitative data suggested that reading and vocabulary can improve

given intensive intervention in areas of weakness. Additionally, whole reading grade

levels can be gained with intensive intervention. Comprehension scores as well

indicated significant improvement after intensive intervention. Even an increase in

the mean grade level by group was suggested. Gains of .5–1.4 grades were achieved

by 44.4% of the students tested.

Discussion of Qualitative Results

Theme 1: Comprehension

The purpose of reading is to comprehend. The students in the study exhibited poor comprehension as a result of defects in decoding skills. The purpose of reading is to craft meaning from text. The connection between direct instruction in phonemic awareness and decoding success leading to increased comprehension is a recurring theme in both the extant literature and interviewee comments.

Lack of decoding skills has been reported as a major obstacle for learning to read by a number of authors (Vellutino, Scanlon, & Lyon, 2000; Wagner & Torgeson, 1987). Interviewee perceptions overwhelmingly supported the contention that phonemic awareness needed to be addressed among their students, and that as a result it was a very important component of the SRA reading intervention program. In general, interviewees reported that phonemic awareness training improved student reading skills and eventually led to increased comprehension. This perception is consistent with research that has established that phonological awareness is crucial to reading success, and that attention should be devoted to training students with deficits in phonological awareness (O'Connor, Leicester, & Jenkins, Slocum 1993; Torgesen, Morgan, & Davis, 1992). The link between decoding skills and improved reading may have been explained by Interviewee 3, who said, "If you can't pronounce the word, you don't know what the word means. If you don't know what the word means,

how can you comprehend what you are reading?" Essentially, he was talking about decoding, and his concept of how the process works is in agreement with Perfetti (1986), who posited that decoding and word identification are the recurring essential skills underlying proficient reading.

Similarly, Berninger et al. (2000) found that syllable awareness training for written words is more effective if preceded by effective phonological training. Interviewees in the current study stated that teaching phonics directly was a strong point of the SRA program, and the program was perceived as successful. This approach is essentially what Ehri et al. (2001) outlined, stating that frequent assessment and direct teaching methods are important for teachers effectively to correct deficiencies in phonic awareness. Adams (1998) also reported that direct instruction in phonics combined with an emphasis on meaning and connected reading results in better word recognition, better vocabulary, and better reading. Vellutino (1979) suggested deficiencies in reading instruction should be addressed with a direct teaching approach. Interviewee 2 stated specifically that this approach was utilized in the SRA program, noting that during the program students started out working with "vowel sounds and consonant sounds and the blends." She suggested direct teaching was used when she described how students and teachers "pronounced the words, spelled the words, and talked about the meanings of words." The effectiveness of this type of direct instruction for reading students is well documented for both elementary and intermediate students (Anderrson, Evertson, & Brophy, 1979; Evertson et al.,

1981; Fisher, 2000), and probably contributed to the success of the SRA reading intervention program under study.

Interviewees were very clear that strengthening students' vocabulary was an important component of the program. The methods used generally included increasing phonemic awareness, repetitive reading, and one-on-one instruction. As mentioned above, this process was probably facilitated by increasing phonemic awareness during the course of the program and by concomitant increases in student ability to recognize the words being used. According to Interviewee 3, drills in vocabulary and comprehension were emphasized, and students were required to write words, pronounce words, define words, and build on words while remaining within the context of the story being read. He indicated that teachers used repetitive reading and defined vocabulary words, again an indication of direct teaching methods. Such intensive vocabulary training is in alignment with published research literature that suggests vocabulary should be developed to such a degree that many words are recognized quickly and automatically. For example, LaBerge and Samuels (1974) argued that *automaticity*, or quick word recognition, needs to be achieved so that readers can focus on comprehension. Thus, the intervention program had an emphasis on phonemic awareness, which tends to lead to increased vocabulary; increases in vocabulary ultimately can lead to increased comprehension.

For many students simply reading words is not enough to enable understanding, even with improved phonemic awareness and vocabulary. Students

who are struggling readers need to learn specific ways to prepare for reading, to understand what they are reading while they read it, and to summarize and reflect about what they have read (Bos, & Vaughn, 2002). Consequently, instruction should include direct teaching (Swanson, Gersten et al., 2001), which was part of the SRA Corrective Reading program. In other words, direct teaching methods may be used to increase comprehension strategies (Duffy & Roehler, 1987) as well as phonics and phonemic awareness (Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2002; Torgensen & Mathes, 2002) and vocabulary (Tomesen & Arnoutse, 1998). The suitability of direct instruction has been demonstrated and extended to the secondary level (Stallings, Needles, & Stayrook, 1979). In the end the direct instructional techniques incorporated into the SRA reading intervention program should result in increased reading fluency (Meyer & Felton, 1999). Evidence from the quantitative tests that were conducted, staff interviews, and the confidence placed in the program by the school district indicated this was true of the program under study.

Theme 2: Organization

Interviewees indicated organization was a major factor in the implementation and success of the reading intervention program. Factors contributing to perceived organization of the program included teacher training, the use of small groups, the scripted nature of the program, and scheduling changes at the school.

97

Interviewees agreed that teacher training was an important facet of the intervention program. According to Joyce and Showers (1995), the processes by which educators learn new skills and knowledge come from staff development training. Staff development training specific to the SRA program provided teachers with the skills, strategies, and material they needed to implement the program correctly and effectively. Unfortunately, professional development designed to help teachers do their work better is inevitably bound up with a sense of "fitting in" something extra into their already busy schedules (Hargreaves, 1994). Therefore, teachers often contemplate professional development activities with some cynicism, waiting to be convinced that it will in some way benefit either themselves or their students (Loughran & Gunstone, 1997). However, at the case study middle school faculty and staff seemed to be willing to give up personal time for the sake of developing an effective reading intervention program. According to Interviewee 2,

> Some teachers and faculty actually went and had training on Saturdays and afternoons so the teachers had to be willing to give extra time in the afternoons and on Saturdays to receive the training. It was an investment with the faculty and staff members.

This attitude was certainly commendable, but the role of administrators should not be underestimated in helping shape teacher willingness to participate. The school administration and district personnel supported the program, and this support must have helped teachers form a positive and more confident outlook toward program activities. Additionally, this program was well funded, and adequate supplies are most often looked on favorably by teachers used to a short supply of lesson materials.

According to Interviewee 1, "We had the books that we needed, the workbooks that we needed. We had overheads; we had all the materials that we needed." The fact that training was well organized and took place before program implementation probably contributed to teacher confidence and support. Administrative support, district support, and an abundance of supplies and materials were most likely factors in the development of a positive attitude by many teachers.

Another facet of how the program was organized was the conscious use of small groups during implementation. The purpose behind the use of small groups and same-ability groups was to reduce the range of abilities between group members so that teachers could instruct students who were functioning on approximately the same level and spend more time with each student. Interviewees agreed that this was an important aspect of the Corrective Reading program. According to Maheady (1997), grouping "can powerfully influence positively or negatively the levels of individual students engagement and hence academic progress" (p. 76). Similarly, Achilles (1999) suggested that there is now good evidence that smaller classes make better teaching possible, and that this is the primary reason why children in smaller classes demonstrate higher achievement. Interestingly, smaller classes produce larger achievement gains in children for low-income families than in more advantaged children.

Older students, those in middle school in particular, have shown evidence that same-ability grouping for reading promotes effective outcomes for struggling students (Vaughn, Hughes, Moody, & Elbaum, 2001). Minority middle school

students (such as those in the current study) and low-SES students exhibit the greatest

gains as a consequence of small classes (Krueger & Whitmore, 2001). Several other

studies also have found that minority and disadvantaged students benefit more than

other students from attending small classes (Hanushek et al., 1998, Foorman, B.R., &

Torgesen, J. K. 2001).

One of the reasons for higher achievement using small class size may be more

time on task. Cooper (1993) reported that pupils in smaller classes spend more time

on task. Similarly, Blatchford, Goldstein, Martin, and Browne (2002) reported that

students in smaller classes perform better academically with less off-task behavior.

With fewer children teachers can get to know their children better, which allows for

more awareness of the difficulties some children may have relating to others.

Interviewee 4 stated,

> Based on the assessments, they were placed in classes that were the same type
> of reading problem, so the whole class would work on the same thing instead
> of having a whole class of different-level kids that were working on different
> things.

According to a number of authors, effective implementation of instructional

practices must consider group size for effective outcomes (Elbaum, Vaughn, Hughes,

& Moody, 1999, 2000; Louetal, 1996). Levin, Glass, and Meister (1987) found that

low class size was a contributing factor to an effective intervention program for

culturally diverse middle school students, a fact that reflects heavily on the school

used in the present study. For students who struggle with reading, it has generally

been assumed that smaller, more intensive group sizes are more effective for

improving reading performance, because students are provided with more opportunities to demonstrate what they know and to receive feedback from an expert. Thus, opportunity for intensive instruction is often necessary for students with reading problems (Clay, 1985; Pinnell, DeFord, Lyons, & Bryk, 1994).

Interviewees found program implementation to be very well organized and "scripted." They generally considered this to be an asset to the program. Interviewee 1 said the students liked the structure of the program and would even correct instructors when things were done out of order. Other interviewees indicated students soon learned exactly where to go and how the program would work once they got there. Additionally, the structured nature of the program allowed teachers the comfort of knowing exactly what to do from day to day. Interviewee 1 reported, "The whole thing was scripted, and I followed the script. That's what we were trained to do, and that's what we did." This level of organization allowed teachers the luxury of following a well-defined plan that required very little modification on their part. Structure helped eliminate worry and promoted confidence.

Yet another important component in the organization of implementation was how the SRA program was incorporated into the school's daily schedule. Successfully implementing the SRA program required restructuring campus schedules and routines; according to interviewees, it was indeed necessary to add a new 45-minute reading period for the intervention program. Elmore and Fuhrman (2001) reported that restructuring at the local level could be driven by stand-alone efforts, and all the interviewees made it clear that the decision to implement the

school-wide intervention program was made at the campus (local) level. There is precedent for restructuring school schedules in order to help address middle school issues (Lewis, 1999). Schools nationwide have demonstrated repeatedly how restructuring the schedule can result in more effective use of time and can assist in establishing desired programs and instructional practices (Reid, 1995).

Although block scheduling has been in existence and reported in the contemporary literature since the late 1960s, it gained momentum in the late 1980s as a viable scheduling model in response to the literature on cognition supporting deeper learning by students through sustained and uninterrupted interaction with their subject matter. O'Neil (1995) suggested block scheduling could lead to better instruction and improved outcomes, and Deuel (1999) showed dramatically positive results in favor of block scheduling. Therefore, block scheduling was already at the test school, with one change: A zero hour was created at the beginning of the day, a 45-minute period dedicated to the reading intervention program.

Although scheduling changes in any organization are often met with initial resistance, as a result of excellent planning the new 45-minute SRA reading period was incorporated with relative ease. According to Interviewee 2, "It was very smooth." Indeed, the idea was even popular among some parents. According to Interviewee 2, some of the parents actually came to the school to observe the new program in action. Scheduling is a valuable but untapped resource for school improvement that was utilized in the case of the Corrective Research program studied here.

102

Theme 3: Positive Reinforcement

Brophy (1998) suggested,

Rewards are better used with routine tasks than with novel ones, better with specific intentional learning tasks than with incidental learning or discovery tasks, and better with tasks where steady performance or quantity of output is of more concern than creativity, artistry, or craftsmanship. It is better to offer rewards as incentives for meeting performance standards (or performance improvement standards). (p. 11)

Given the scripted and often repetitive nature of the SRA program, it is clear that the intervention program used was well suited to the successful use of rewards as outlined by Brophy (1998). SRA program tasks were well known, repetitive, and designed to achieve a steady program if implemented diligently. Routine tasks were rewarded if performance was adequate to meet prescribed standards. As a result, at least 50% of the interviewees attributed improvement in reading success to the skillful use of extrinsic rewards and the corresponding intrinsic rewards associated with public recognition, including increased self-esteem. Additionally, class-based rewards allowed teachers to put indirect pressure on students to improve. For example, in many cases students were only able to earn a pizza party when the entire class reached a certain level of competence in routine reading activities. If the majority of a class was interested in earning the party the students themselves would apply peer-pressure to those lagging behind. Students often found themselves responding to peer-pressure even when they may not have responded to nudging from the instructor or an internal desire to do well. According to Interviewee 3, the results

of extrinsic rewards were very gratifying. Children were pleased with themselves, and their self-esteem soared. They held their heads up, and their desire to behave seemed to increase.

According to interviewees, extrinsic rewards used by teachers assigned to be SRA intervention program instructors probably contributed significantly to the success of the program. Interviewee 2 described how students were pleased with themselves at the prospect of being able to earn rewards such as stickers, gifts, pencils, and pizza parties. Response to these rewards was in agreement with published reports cited above. Students and parents alike were excited by the chance to be rewarded for their good works.

The ability to select the best method to motivate students has been a concern for researchers and educators alike. Chance (1993) noted that intrinsic rewards alone were not enough for effective learning. In order to be most effective, rewards must be given as a result of success. When extrinsic rewards are used, they should be used with wisdom, however, or they will have negative effects.

Extrinsic rewards are used inappropriately when success is not taken into consideration or when the ability to succeed is not practical because of an unreasonable or unobtainable high standard. Sweet and Guthrie (1998) noted extrinsic rewards do have a positive effect on skill-building activities. According to Lowman (1990), "If an instructor wants students to begin a new behavior or to behave in an easily specified way, extrinsic inducements always work more quickly and powerfully than intrinsic ones" (p. 137). Students tend to respond favorably to the

implementation of the extrinsic reward. This was true for the Corrective Reading program.

Theoretical Analysis

The use of grounded theory provided the flexibility and freedom to explore the intervention reading program more in depth. According to and Corbin (1998), a successful grounded theory approach consists of a set of methodical steps that should ultimately guarantee the development of a good theory. Strauss and Corbin seemed to suggest that the quality of a theory is related to how it was derived and crafted. This idea of developing the theory from the data is at odds with the traditionally accepted scientific perspective that how a theory is derived is irrelevant, and that the quality of a theory is determined solely by its ability to explain new data.

The idea underlying the implementation of grounded theory approach is reading and studying a textual database until one "discovers" important categories, concepts, properties or variables, and their interrelationships. The following is a discussion of the way grounded theory was used to analyze data gathered in the present study.

In the case of the present study, themes were discovered in the interview data. After the initial analysis of the conceptual labels found within interviews conducted with teachers and administrators from the intervention program was finished, a number of key factors or themes emerged. These themes elicited new insights into the reading intervention program. Interpretation of the data by the statements of the

105

interviews showed common threads in their perception of the reading intervention program that coincided well with published literature on the subject. Using this grounded theory approach, the following themes emerged, as already noted: (a) comprehension, (b) organization, and (c) positive reinforcement. The interviewees perceived these themes to be components of an effective reading program for culturally diverse middle school students with serious reading problems.

In general, interviewees perceived the intervention to be beneficial in increasing the reading level of culturally diverse, low-SES, middle school students who were two to three years below grade level in their reading skills. Statements about students before the intervention program included the following from Interviewee 3: "It was an issue of self-esteem; they were angry. They weren't being successful." However, by the end of the program, Interviewee 3 was able to say, "They felt good about themselves. They were successful." These changes in perception are a good indication of how interviewees felt about the program's success.

Utilizing the data collected in this study in conjunction with relevant published research information, the following grounded theory was developed: Based on this specific case study, when a reading intervention program that emphasizes comprehension, organization, and positive reinforcement is implemented in a racially diverse urban middle school comprised primarily of low-income African American,

Hispanic, and White students, it is reasonable to assume that reading skills among these students will increase. This theory is illustrated graphically in Figure 6.
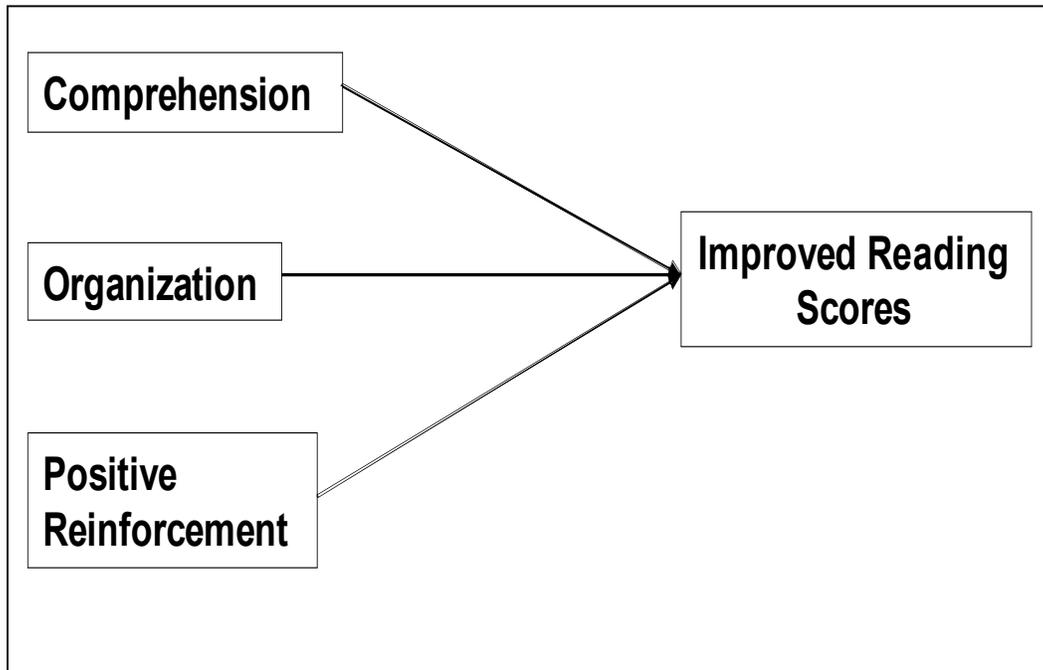
Figure 6. Middle school reading intervention program grounded theory.

Implications of the Results

The results of this study have implications in a wide range of areas. Thus, for the purposes of discussion these implications are discussed in three subsections related to implications for (a) practice, (b) policy, and (c) future research.

Implications for Practice

The program and practices of the intervention under study were grounded in scientifically based research that has a proven track record of success in effective

high-performing, high-poverty schools (Grossen, 2001). The findings of this study have practical implications for schools and districts that are responsible for rapidly increasing the reading skills of middle school students with reading problems. As a matter of practicality, the following components of the program should be implemented in middle school reading programs to help improve reading performance.

Phonemic awareness. The first component of the invention program, and one that should be incorporated into effective reading programs, is phonemic awareness (Ehri et al., 2001). The importance of basic sound recognition is consistent with findings regarding phonemic awareness and improved reading skills in older students. The findings of this study are promising, considering that at the beginning the students in this study were two to three grade levels below the standard in their reading skills. The students' dramatic improvement—up to 51%—demonstrates the value of incorporating phonics and direct instruction in schools with struggling middle school readers. This finding is consistent with published research indicating that direct instruction in phonemic awareness causes this important preskill to develop in a timely manner (Grossen, 2001).

Integration into the school day. The second component of the reading intervention program that served to increase effectiveness and that should be incorporated into effective reading intervention programs is seamless integration into the school day. This integration in many cases may require restructuring school schedules and routines. This approach is only effective for the school as a whole if

changes are across the board, and if teachers and administrators have a shared vision

and belief that all students can be academically successful. Restructuring at the local

level, however, can be driven by stand-alone efforts (Furman & Massell, 1992); all

the interviewees clearly indicated that the decision to implement the school-wide

intervention program was made at the campus (local) level. The decision was based

on data from past performance on state-mandated assessments; a reading assessment

test given school-wide; and complaints from many teachers in disciplines such as

English, math, science, and social studies about the students' inability to read and

comprehend basic content material in all academic areas.

Precedent exists for restructuring school schedules in order to help address

middle school issues (Lewis, 1999). Restructuring school schedules can result in

more efficiency in establishing desired programs and are instructional practices (Reid,

1995). According to interviewees, this process was implemented at the study site as

well.

Positive reinforcement. The third component of the intervention program with

practical implications is the use of positive reinforcement. According to Lowman

(1990, p. 137), "If an instructor wants students to begin a new behavior or to behave

in an easily specified way, extrinsic inducements always work more quickly and

powerfully that intrinsic ones." Brophy (1998) indicated,

> Rewards are better used with routine tasks than with novel ones, better with
> specific intentional learning tasks than with incidental learning or discovery
> tasks, and better with tasks where steady performance or quantity of output is
> of more concern than creativity, artistry, or craftsmanship. It is better to offer

rewards as incentives for meeting performance standards (or performance improvement standards)." (p. 11)

The use of extrinsic rewards proved the extra incentive to motivate the students in a short period of time, and such incentives easily could be incorporated into a variety of similar programs.

Implications for Policy

Typically, schools with poor reading performance are given standards to meet and a timeframe to meet the standards. Deadlines are often strict, and schools that fail to meet them may lose administrators or even be reconstituted. However, simply setting a deadline to correct a problem without providing a means to do so may not always be an effective strategy. Without a clearly defined strategy for improvement, low-performing schools often remain low performing despite changes in administrators and teaching staff. Data from this study suggest a possible alternative to reconstitution and losing teachers and administrators who have built a rapport with the community. Instead, local and state policymakers could mandate the implementation of effective intervention techniques or the addition of certain aspects of these effective programs into local curricula.

For example, low-performing schools in reading could have their curricula evaluated to insure incorporation of adequate instruction in phonemic awareness. The curriculum could be modified to include such instruction, or an intervention program could be implemented to insure its inclusion. Similarly, the use of direct instruction

and positive reinforcement could be evaluated and steps taken to include them in everyday instruction; in more drastic cases, an intervention program could be implemented. Policymakers could mandate the use of intervention programs for low-performing schools that have been unable independently to incorporate proven techniques such as phonemic awareness, direct instruction, and positive reinforcement into their curricula.

Further, staff development and training in areas such as phonemic awareness, direct instruction, and positive reinforcement can be facilitated by state or district policies or regulations. National Staff Development Standards for 2001 stated the use of information from practitioners with similar goals and interests results in positive professional experiences and high levels of learning for everyone involved. Staff development meetings and conferences can be planned to create a wealth of information on what works. Focusing training and resources on the areas that are known to work with culturally diverse students can facilitate significant strides in student development.

Implications for Future Research

Lastly, the findings of the current study have implications for researchers who design and implement studies for students with reading problems. Even though this study yielded promising results for struggling middle school readers, further investigation is warranted at the middle school level, because very few studies are currently present in the literature.

Available research suggests that students who progress through direct instruction programs at a normal pace indeed acquire skills at an accelerated rate. This research is increasingly critical, since programs that utilize federal No Child Left Behind funds require school and districts to use programs with scientifically based instructional strategies. Although the current research began to study the effect of reading instruction on reading achievement, questions still remain. The success of the reading intervention program clearly demonstrates that students in middle school can learn when the school program meets their needs, and interviews conducted with teachers and administrators helped gain a valuable understanding of their perceptions. However, future research into the perceptions of students involved in such programs would provide valuable insight that could increase the success of intervention programs. Clearly, before researchers can discuss the relationship between reading intervention and reading achievement scores confidently, more studies exploring the relationship between the two need to be conducted. These studies should include information about student as well as instructor perceptions.

Another area that needs to be studied in greater depth is how the organization of a reading program may change with the age of the students. Although data from the current study seemed to support the notion of the success of the intervention program, the students in this experiment were still developing physically, socially, and intellectually, and these changes might have affected study results. Alternatively, future studies may find that success is more easily achieved at a younger age, before

students become gripped by adolescent social issues. Research with multiple cohorts as well as the use of a control group would help to identify these factors.

In addition a more in depth study is needed of how positive self-esteem develops and how it is connected to culturally responsive pedagogy. Students whose self-esteem for reading is low often resist reading or apathetically go through the motions of learning to read. In contrast, the same students often exert considerable effort, tenacity, and discipline in activities they like and in which they feel self-efficacious, such as athletics and drawing. This evidence suggests "that self-efficacious students participate more readily, work harder, persist longer, and have fewer adverse emotional reactions when they encounter difficulties than do those who doubt their capabilities" (Zimmerman & Brown, 2003, p. 86).

Although this study demonstrated the effects of the Corrective Reading program on the reading skills of students with learning problems, there is a need for further investigation of the program's effects on students as they transition to high school. A very small number of studies have examined this transitional period in light of intervention. Additionally, determining what types of middle school structures help foster success as students move to the high school level would fill a void in current knowledge.

All future investigations should use both qualitative and quantitative research techniques in order to develop understanding and acceptance within the scientific community of the psychological components involved in reading development and effective instruction (Eisner, 1981; Smith, 1998). The use of a grounded theory

113

approach allows data analysis that accounts for life experiences of individuals to explain a phenomenon (Strauss & Corbin, 1998).

Assuming reading intervention does help raise test scores, the question remains whether or not improved test scores alone are enough to aid students in their quest for success in high school. Educators need more information about whether or not Corrective Reading has the necessary components to help students improve their overall success.

Limitations and Strengths

Qualitative

The strength of qualitative studies is that they often yield rich data with details and new insights. Face-to-face contact with interviewees in this study made the responses more personal and provided opportunities to explore topics in depth. However, a number of factors may limit the effectiveness of qualitative studies and the data they generate. A potentially major source of error in studies that utilize interviews is recall error. In the current study member checking was used in an attempt to compensate for this potential error. After the interviews were completed and transcripts produced, the respondents received a copy to examine, ensuring the accuracy of the information. Unfortunately, this process cannot eliminate all such error, since it is possible for respondents to convince themselves of the accuracy of false information.

114

The qualitative data generated in this study were limited by the small number of participants chosen for interviewing. However, the school under study already had been reconstituted, scattering staff involved in the intervention program, and making it difficult to obtain more interviews. Additionally, the study was a single case study, and results cannot be generalized to other school districts. Although the data are convincing for the school under study, multiple schools in a variety of ethnic, social, and economic settings would have been necessary to extrapolate results to other school districts in the region. Similarly, the use of multiple interviewers might have helped strengthen study results. One of the potential limitations of the interview process was that it was conducted by a single researcher rather than a team. As a result, data might have been influenced by the researcher's interests and purposes. Although the researcher used structured interview questions patterned after those found in similar studies, the investigator's tone and demeanor could have influenced interviewee responses. This was a possibility despite all participants' being asked the same questions in the same order, giving little freedom for flexibility. Additionally, although care was taken to avoid inaccuracies in data collection (interviewees were debriefed and given time to check written transcripts of their interviews), these precautions could not have eliminated bias in how results were interpreted.

One of the strengths of the current study is that 4 interviewees were selected from a number of participants in the program. The respondents were selected with several qualifications in mind to gain an in-depth view of the phenomenon experienced. However, as a result sample size (interviewee pool) was low. This is not

115

unusual. Qualitative researchers often employ a limited number of participants. Although this type of study provides richness in terms of data regarding participants' experiences elicited through interviews, only a few participants could be included in the study. Although theoretical sampling was used to ensure valid questions were asked (Guba & Lincoln, 1989), more viewpoints could have been captured from a larger sample. However, the small number of participants helped make each interview more personal. Additionally, the small number of interviewees made it possible to record all interviews and transcribe them verbatim.

This was a case study and thus results are not necessarily generalizable. However, the strength of a case study is its ability to provide a detailed description of the day-to-day implementation and thus information that can lead to an increased understanding of the uniqueness of the situation. Based on insights gained from a case study, areas for future research as well as potential staff development topics may surface. The use of case studies is very effective in educational research (Merriam, 1988).

The study was limited by the fact that the interview protocol was not standardized. It was necessary to frame the research questions in a manner that would provide the flexibility and freedom to explore the phenomenon in depth. Under this approach, all the concepts pertaining to the phenomenon had not yet been identified and freedom was required to create the research questions. Other similar studies were used as a frame to create the questions as well as the advice of dissertation committee

members, who had a strong background and understanding in qualitative research and provided feedback on all interview protocol questions.

Quantitative

Although the results indicated that the intensive reading intervention program improved students' reading skill, caution must be exercised when interpreting the findings. First, sample size was an important limitation, making it difficult to extrapolate study results to other schools nationwide. Only one school was used, and the number of students used was relatively small, only 108. Although very small sample sizes are often used in other disciplines, when dealing with human behavior and learning, large sample sizes are often desired. Statistical power increases automatically with sample size (Gall, Borg, & Gall, 2005). With a larger sample size smaller differences could have been detected with greater accuracy. With a sample size encompassing a number of different schools a determination could have been made of whether or not the study school was typical of other middle schools in the student response to the program. However, small samples could have good statistical power and yield important results if the researcher matches the subjects on a critical variable. To improve the statistical power and study results, participants were matched on pretest and posttest results on the RLI. Finally, although a larger sample may have been desired, the small sample size does not invalidate the results found at the study school. Differences in pre- and posttest results were statistically significant and valid.

117

Second, given the time, money, and support, a study encompassing multiple years would have been desirable and would have allowed for firmer conclusions. Multiple years of data would have helped determine whether or not this cohort of students was typical or atypical in their response to the intervention program.

The third limitation was the lack of a control group. The intervention occurred with the entire school population. Unfortunately, this limitation was unavoidable. Evidence indicated the program was probably a good one, based on sound science from peer-reviewed research journal articles. The administration was unwilling to deprive any children of the opportunity to participate in the program and improve reading proficiency, simply for the sake of obtaining good research data. Therefore, no control group was used. Because no control group was used, the results of this study do not prove that this program worked in the ways discussed. In other words, this study does not demonstrate causality. Instead, the results of this study are highly suggestive that the program worked to increase the reading skills of the students.

The lack of randomization of assignment to a treatment or comparison group is a fourth limitation. Students were assigned to a reading group based on results of the Flynt Cooter test administered to all students to gather data regarding student reading levels. Additionally, students were given the RLI as an additional measure to ensure reliable and accurate information regarding reading performance. Lack of randomization was unavoidable, because students at the same reading level were presumed to progress better as a cohort as a result of feeling comfortable with each other.

A fifth limitation was teacher effects, which might have impacted the internal validity of the study. Teacher or experimenter effects occur when the treatment effectiveness depends on who is administering it. Weak or inappropriate implementation of the intervention strategy by a teacher could influence the effectiveness of the strategy, thereby impacting student outcome. Preintervention program training and scripted program implementation were designed to help minimize teacher error, as was the training of all subject area coaches to implement the intensive reading program. In an ongoing effort to reduce this form of error, ongoing teacher training sessions were conducted to enhance teacher knowledge and skills in implementing the program. However, human error is an unavoidable part of any research in which human behavior, learning, or teaching is a key component.

The sixth limitation to the study's external validity was limited generalization of study results to culturally diverse urban students in middle school. Extending this study to students outside this setting is an area that needs further investigation.

Finally, selection of the subjects and the venue might have influenced the results. Only English-speaking students were included in this study. A larger sample size with random selection of subjects might have contributed to stronger conclusions about statistical results.

Conclusions

Culturally diverse students are the fastest growing segment of the U.S. population and the largest component of public school enrollment (National Center

119

for Educational Statistics, 2002). Unfortunately, students attending culturally diverse schools are often more likely to experience reading difficulties than students attending predominantly White, suburban schools (Lee, 2002), and the problem seems to be getting worse over time (Haycock, 2001). This issue is reflected in the fact that the gap between White and Black students is widening in most states (NAEP, 2005). The same is true for Hispanic students (NAEP, 2005). The nation cannot continue to ignore or waste this precious source of talent. It is imperative that educators address the core issues related to these students' academic underachievement.

This study provides information about the needs of struggling middle school students who were two or three grade levels behind in reading and who attended an ethnically and culturally diverse school. These students had not been labeled as special education students and so were not receiving special services. No individual testing had been conducted to identify the individual needs of these students. They were moving through the system, struggling, but not enough to receive services.

The teachers, administrator, and counselor interviewed clearly articulated the challenges they faced in the implementation of the program and the joy they felt as a result of the improvements the program elicited in reading achievement. They agreed that success was largely the fruit of direct instruction in phonics, vocabulary, and comprehension. Similarly, Adams (1998) reported that direct instruction in phonics combined with an emphasis on meaning and connected reading results in better word recognition, better vocabulary, and better reading. Research dealing with the success

of direct reading instruction clearly demonstrates that students in middle school can learn when the school program meets their needs. Teachers should make every effort to use strategies that research has shown to be effective (Carnine, 1997). Effective reading skills create a foundation upon which students can become lifelong learners. Unfortunately, students who have poor reading skills face barriers that can keep them from being successful students and, eventually, successful and productive citizens (Eccles & Wigfield, 2002).

The success of this reading intervention program was due in large part to the fact that it was tailored to fit the needs of struggling adolescent readers. According to Harmon (2000), this tailoring is critical for students reading below grade level to become more effective readers. Additionally, this study addressed the needs of middle school students who have difficulty identifying unknown words, and Marlow (2001) reported that lacking an intensive program to counteract this deficit is a major problem for middle school struggling readers. Phonemic awareness and increased vocabulary were what the students in the current study needed to counteract this deficit. The tailoring of programs to meet the needs of the students is in alignment with recommendations by the National Reading Panel (2000) emphasizing the importance of effective reading instruction that provides a plan of explicit instruction for teaching critical skills needed by students to become good readers. The middle school in this case study used a plan of explicit instruction utilizing a scientifically based reading strategy known to increase reading skills in poor readers.

Clearly, both the scripted nature of the program and the direct teaching approach it exploited were important to program success. Vellutino (1979) indicated deficiencies in reading instruction should involve the direct approach. The effectiveness of direct instruction has been well documented, as indicated by early studies involving elementary and intermediate students (Anderrson et al., 1979; Evertson et al., 1981; Fisher, 2000). The suitability of direct instruction has been demonstrated and extended to the secondary level (Stallings et al., 1979). Secondary school teachers who use direct-instruction procedures target a specific body of objectives they believe the learner should master.

Another component in the success of the reading intervention program was its organization with input and support of faculty and staff. Comments from faculty, staff, and administration were collected, collated, and shared. Everyone involved was aware of the extra time commitment needed to make the reading intervention program work school-wide. Expectations of the students, faculty, staff, and administration were known. Faculty, staff, and administrators shared concerns and potential problems. However, everyone showed support for implementation of the intervention program.

Based on analysis of both quantitative and qualitative data from this study, it can be concluded that the reading intervention program was successful in improving the reading skills of culturally diverse middle school students at the study school. Implementation of the intervention program included a number of facets that other research suggests as conducive to success. These included the use of a direct teaching

approach to increase phonemic awareness and skill as well as to increase vocabulary and comprehension. The program was well organized and implemented. Teachers were well trained. Class size was small to facilitate teacher effectiveness, and a special period was smoothly integrated into the school day. Extrinsic rewards were used with excellent results, leading to increased student self-esteem and proficiency. Administrative support and increased parental involvement were probably contributing factors to the success of the program as well.

It is clear that many middle school students need additional reading instruction to become literate and handle the demands of continued schooling and adulthood. Students need this instruction to continue learning in all subject areas of endeavor. Yet, many schools do not offer reading instruction for middle grade students, or if they do they do, it is provided for remedial students only. The results of this study suggest that culturally diverse middle school students can benefit from a school-wide program designed not just for remedial students. Even traditionally low achievers can improve two to three reading grade levels in one semester with the appropriate instruction. Middle school students with serious reading problems can make reading gains if they are properly assessed and given training that targets identified areas of weakness. However, educators must be willing to invest the necessary planning time, effort, and administrative support into low-performing schools. Students can make incredible improvements in their reading skills if given the chance to learn. However, effective intervention must be in place in the middle

123

school for students performing below grade level if those students are to be successful in high school.

Appendix

Interview Protocol

Implementer's Background

1. What is your educational history? Please tell me about how you learned to read as a child.

2. Why did you become an educator?

3. In general terms, please describe the students at your school and their backgrounds. How long were you at the study site? (nature: self-esteem, motivation, etc.)

4. Tell me about any experience you have had teaching students how to read, particularly students with reading problems? Reading problems like phonemic awareness (understanding of letter–sound relationships), phonic word recognition, reading fluency, vocabulary development, reading comprehension. What strategies did you utilize to teach students to read?

Program Implementation

5. At what point do you remember the school deciding that there were many students with serious reading problems? How did this decision get made?

6. What do you remember about how this problem was brought to the school's attention?

7. How were children placed in a reading program? Please describe the process for me.

8. How did school screen students for reading problems before the reading intervention program?

Implementer's Perception

9. How was the reading program initiated?

10. Please describe how staff development prior to program initiation was accomplished. What was the nature of that staff development?

11. Describe your role in the reading intervention program.

12. Did you perceive any benefits to the students? Please list or give examples.

13. Did you perceive any drawbacks on the reading program? Please list and give examples.

14. Describe the students' attitude toward reading before the intervention program.

15. Describe the students' attitude at the conclusion of the reading program.

16. Describe your perception about the overall success of this reading program pertaining to students' reading skills.

Implementation Issues

17. In your experience, how was the program implemented on a daily basis?

18. Were there any problems with the implementation of this reading program? If so, how could these have been corrected?

19. What steps did administration and teachers take to resolve the problems?

Reading Comprehension

20. Were there any students with difficulties with reading comprehension skills? If so, to what extent minimal (1 year below grade level), moderate (2 years below grade level), or extensive (3 or more years below grade level)?

21. Was reading comprehension addressed in the intervention program?

22. What other factors tended to be associated with comprehension problems?

23. Can you recall any specific cases of how comprehension problems were addressed? Please describe.

Parental Involvement

24. What role do you believe parents play in helping their children with learning how to read? Please give me some specific examples.

25. What information was provided to parents about the reading program?

26. In what ways did the parents support the school/students in the implementation of the reading program? Please give me examples of their support.

Appendix

Interview Protocol

Implementer's Background

27. What is your educational history? Please tell me about how you
learned to read as a child.

28. Why did you become an educator?

29. In general terms, please describe the students at your school and
their backgrounds. How long were you at the study site? (nature:
self-esteem, motivation, etc.)

30. Tell me about any experience you have had teaching students how
to read, particularly students with reading problems? Reading
problems like phonemic awareness (understanding of letter–sound
relationships), phonic word recognition, reading fluency,
vocabulary development, reading comprehension. What strategies
did you utilize to teach students to read?

Program Implementation

31. At what point do you remember the school deciding that there
were many students with serious reading problems? How did this
decision get made?

32. What do you remember about how this problem was brought to the
school's attention?

33. How were children placed in a reading program? Please describe
the process for me.

34. How did school screen students for reading problems before the
reading intervention program?

Implementer's Perception

35. How was the reading program initiated?

36. Please describe how staff development prior to program initiation was accomplished. What was the nature of that staff development?

37. Describe your role in the reading intervention program.

38. Did you perceive any benefits to the students? Please list or give examples.

39. Did you perceive any drawbacks on the reading program? Please list and give examples.

40. Describe the students' attitude toward reading before the intervention program.

41. Describe the students' attitude at the conclusion of the reading program.

42. Describe your perception about the overall success of this reading program pertaining to students' reading skills.

Implementation Issues

43. In your experience, how was the program implemented on a daily basis?

44. Were there any problems with the implementation of this reading program? If so, how could these have been corrected?

45. What steps did administration and teachers take to resolve the problems?

Reading Comprehension

46. Were there any students with difficulties with reading comprehension skills? If so, to what extent minimal (1 year below grade level), moderate (2 years below grade level), or extensive (3 or more years below grade level)?

47. Was reading comprehension addressed in the intervention program?

48. What other factors tended to be associated with comprehension problems?

49. Can you recall any specific cases of how comprehension problems were addressed? Please describe.

Parental Involvement

50. What role do you believe parents play in helping their children with learning how to read? Please give me some specific examples.

51. What information was provided to parents about the reading program?

52. In what ways did the parents support the school/students in the implementation of the reading program? Please give me examples of their support.

References

Achilles, C. M. (1999). *Let's put kids first, finally: Getting class size right.* Thousand Oaks, CA: Corwin Press.

Adams, M. (1998). The three-cueing systems. In J. Osborn & R. Lehr (Eds.), *Literacy for all: Issues in teaching and learning* (pp.73–99). New York: Guilford Press.

Alley, G. R., Desher, D. D., Clark, F. L., Schumaker, J. B., & Warner, F. (1983). Teaching self-management skills to learning disabled adolescents. *Learning Disability Quarterly, 12*(4), 275–287.

Allington, R. L. (1994). The schools we have. The schools we need. *The Reading Teacher, 48*(1), 14–28.

Anderson, L. M.; Evertson, C. M., & Brophy, J. E. (1979). An experimental study of effective teaching in first grade reading groups. *The Elementary School Journal, 79,* 193–222.

Andrews, L. (1998). *Language exploration and awareness: A resource book for teachers* (2nd ed.). Mahwah, N J: Lawrence Erlbaum.

Ascher, C. (1992). School programs of African-American males and females. *Phi Delta-Kappan, 73*(10), 77–782.

August, D., & Garcia, E. (1988). *Language minority education in the United States: Research, policy and practice.* Chicago: Charles C. Thomas

Bair, L. H. (1992). What research has to say about school-based management. *Catalyst for Change, 21*(2), 17–19.

Beck, I., & McKeown, M. G. (1991). Developing questions that promote comprehension: The story map. *Language Arts, 58,* 913– 918.

Berg, B. L. (2004). *Qualitative research methods* (5th ed.). Boston: Pearson Education.

Berliner, D. C., & Biddle, B. (1995). *The manufactured crisis.* New York: Longman.

Berninger, V. W., Vaughn, K., Abbott, R. D., Brooks, A. Begay, K., Curtin, G., & Graham, S. (2000). Language-based spelling instruction: Teaching children to make multiple connections between spoken and written words. *Learning Disability Quarterly, 23*(2), 117.

Betts, E. A. (1954). *Foundations of reading instruction.* New York: American Books.

Blasé, J., & Blasé, J. R. (1997). *The fire is back!* Thousand Oaks, CA: Corwin Press.

Blathchford, P., Goldstein, H., Martin, C., & Browne, W. (2002). A study of class size effects in English school reception year classes. *British Journal of Educational Research, 28*(2), 169–185.

Bos, C. S., & Vaughn, S. (2002). *Strategies for teaching students with learning and behavior problems* (5th ed.) Boston: Allyn & Bacon.

Brannen, J. (2004) *"Working qualitatively and quantitatively" Qualitative research practice.* Thousand Oaks, CA: Sage Publications.

Bredeson, P. V. (1994). Empowered teachers—empowered principals: Principals' perceptions of leadership in schools. In N. A. Prestine & P. W. Thurston (Eds.), *Advances in educational administration* (Vol. 3, pp. 195–220). Greenwich, CT: JAI.

Brophy, J. (2000). Beyond balance: Goal awareness, developmental progressions, tailoring to the context, and supports for teachers in ideal reading and literacy programs. In M. Graves, P. van den Broek, & B. Taylor (Eds.), *Reading for meaning: Foster comprehension in the middle grades* (pp.170–192). New York: Teacher College Press.

Brosio, R. (2001). Issues and arguments concerning class, gender, race, and other "identities." *Educational Studies, 31*(4), 393–407.

Brynildssen, S. (2002). *Recent reading initiatives: Examples of national, state, and professional organizations' efforts*. New York: ERIC Clearinghouse on Urban Education (ERIC Document Reproduction Service No. ED469927).

Burnett, G. (1994) *Urban teachers and collaborative school-linked services* (EDO-RC-94-2). New York: ERIC Clearinghouse on Urban Education (ERIC Document Reproduction Service No. ED371 108).

Bursuck, W. D., Smith, T., Munk, D., Damer, M., Mehlig, L., & Perry, J. (2004). Evaluating the impact of a prevention-based model of reading on children who are at risk. *Remedial & Special Education, 25*(5), 303–313.

Caldwell, G. P., & Ginthier, D. W. (1996). Differences in learning styles of low socio-economic status for low and high achievers. *Education, 117,* 141–147.

Castle, D. K. & Estes, N. (1995). *High-performance learning communities.* Thousand Oaks, CA: Corwin Press, Inc.

Chall, J. (1993). *Stages of reading development* (2nd ed.). New York: McGraw-Hill.

Chance, P. (1986). *Thinking in the classroom.* New York: Teachers College Press.

Clay, M. (1985). *Early detection of reading difficulties*. Portsmouth, NH: Heinemann.

Cohen, E., Conway, R., & Gow, L. (1988). Mainstreaming special class students with mild handicaps through group instruction. *Remedial and Special Education, 9*(5), 34–41.

Cole-Henderson, B. (2000). Organizational characteristics of schools that successfully serve low-income urban African American students. *Journal for Education for Students Placed at Risk, 5*(1–2), 77.

Cooper, P. (1993). *When stories come to school.* New York: Teachers and Writers Collaborative.

Cronbach, L. (1982). *Designing evaluations of educational and social programs*. San Francisco: Jossey-Bass.

Cummins, J. (1986). Empowering minority students: A framework for invention. *Harvard Education Review, 56*(1), 18–35.

Cunningham, A. E., & Stanovich, K. E. (1991). Tracking the unique effects of print exposure in children: Associations with vocabulary, general knowledge, and spelling. *Journal of Educational Psychology, 83,* 264–274.

Davis, F. B. (1944). Fundamental factors in reading comprehension. *Psychometrika, 9,* 185–97.

Deal, T. E., & Peterson, K. (1990). *Symbolic leadership and the school principalship: Shaping school cultures in different contexts.* Washington, DC: U.S. Department of Education.

Deuel, L. S. (1999). Block scheduling in large, urban high school: Effects on academic achievement, student behavior. *High School Journal 83*(1), 14.

Dickinson, D. K. & Smith, M. W. (1993). Long-term effects of preschool teachers' book readings on low-income children's vocabulary and story comprehension. *Reading Research Quarterly, 29,* 104–123.

Donahue, P. L., Voelkl, K. E., Campbell, J. R., & Mazzeo, J. (1999, March). *NAEP 1998 reading report card for the nation and the states* (NCES 1999500).

133

Retrieved February, 2005, from the National Center for Education Statistics Web site: http://nces.ed.gov/nationreportcare/pubs/main1998/1999500.asp

Duffy, G. G., & Roehler, L. R. (1987). *Improving classroom reading instruction: A decision-making approach.* New York: Random House.

Duffy-Hester, A. M. (1999). Teaching struggling reading in elementary school classrooms: A review of classroom reading programs and principles for instruction. *The Reading Teacher, 52*(5), 478–493.

Dunn, R., & Griggs, S.A. (1988). High school dropouts: Do they learn differently from those who remain in school? *The Principal, 34,* 1–8.

Duran, R. (1989). Assessment and instruction of at-risk Hispanic students. *Exceptional Children, 56*(2), 154–158.

Eccles, J. S. & Wigfield, A. (2002). Motivational beliefs, values and goals. *Annual Review of Psychology, 53,* 109– 32.

Edmonds, R. (1979). Effective schools for the urban poor. *Educational Leadership, 37*(1), 15–24.

Education Commission of the States. (1999). Intervention. *Harvard Educational Review, 56*(1), 18–35.

Ehri, L. (2002). *Phases of acquisition in learning to read words and implication for teaching. Monograph Series 11: Psychological aspects of education–Current trends*. London: The British Psychological Society.

Ehri, L., Nunes, S., Stahl, S., & Willows, D. (2001). Systematic phonics instruction helps students learn to read: Evidence from the National Reading Panel's meta-analysis. *Review of Educational Research 71,* 393–447.

Ehri, L. C. & Wilce, L. S. (1987). Does learning to spell help beginners learn to read words? *Reading Research Quarterly, 22*(1), 47–65.

Eisner, E. W. (1991). *The enlightened eye: Qualitative inquiry and the enhancement of educational practice.* New York: Macmillan.

Eisner, E. W. (1998). *The enlightened eye: Qualitative inquiry and the enhancement of education practice.* Upper Saddle River, NJ: Prentice-Hall, Inc.

Elbaum, B., Vaughn, S., Hughes, M., & Moody, S. W. (1999). Grouping practices for reading outcomes for students with disabilities. *Exceptional Children, 65*(3), 399–415.

Elbaum, B. E., Vaughn, S., Hughes, M. T., & Moody, S. W. (2000). How effective are one-to-one tutoring programs in reading for elementary students at risk for reading failure? *Journal of Educational Psychology, 92*(4), 605–619.

Elmore, R. F., & Fuhrman, S. (2001). Holding schools accountable: Is it working? *Phi Delta Kappan 83*(1), 67.

Emerson, R. M., Fretz, R. I., & Shaw, L. (1995). *Writing ethnographic fieldnotes.* Chicago: University of Chicago Press.

Emmitt, M., & Pollock, J. (2002). *Language and learning: An introduction for teaching.* Sydney, Australia: Oxford University Press.

Evers, W. M. (1998). *What's gone wrong in America's classrooms.* Stanford, CA: Hoover Institution Press.

Evertson, C. M., Emmer, E. T., Clements, B., Sanford, J., Worsham, M., & Williams, E. (1981). *Organizing and managing the elementary school classroom.* Austin, TX: University of Texas, Research and Development Center for Education.

Fielding, L., & Roller, C. (1992). Making difficult books accessible and easy books acceptable. *The Reading Teacher, 46,* 678–685.

Fisher, C. (2000). An effective (and affordable) invention model for at-risk high school readers. *Journal of Adolescent and Adult Literacy, 43,* 326–335.

Fletcher, J. M., & Lyon, G. R. (1998). *Reading: A research-based approach in what's gone wrong in America's classrooms*. Stanford, CA: Hoover Institution Press.

Foorman, B. R., & Torgesen, J. K. (2001). Critical elements of classroom and small-group instruction promote reading success in all children. *Learning Disabilities Research and Practice, 16,* 202–211.

Freiberg, J. (1999). *School climate: Measuring, improving and sustaining healthy learning environments*. London: Falmer Press.

Fullan, M. (2000). The return of large-scale reform. *Journal of Educational Change 1*(1), 5–27.

Gall, M., Gall, J. P., & Borg, W. R. (2005). *Applying educational research: A practical guide.* Boston: Allyn & Bacon.

Gambrell, L. B. (1997). Creating classroom cultures that foster reading motivation. *Reading Teacher, 50*(1), 14–26.

Gaskins, I. W., Ehri, L. C., Cress, C., O'Hara, C., & Donnelly, K. (1996). Procedures for word learning: Making discoveries about words. *The Reading Teacher, 50,* 312–327.

Gay, L. R. & Airasian, P. (2000) *Educational research.* Columbus, OH: Merrill.

Gay, L. R. & Airasian, P. (2000). *Educational research: Competencies for analysis and application.* Upper Saddle River, NJ: Prentice-Hall, Inc.

Gough, P. B. (1993). The beginning of decoding. *Reading and Writing: An Interdisciplinary Journal, 5,* 181–192.

Gough, P. B. (1996). How children learn to read and why they fail. *Annals of Dyslexia, 46,* 3–19.

Griffin, R. (2001). Social contexts of beginning reading. *Language Arts, 78*(4), 371–378.

Grossen, B. (2001). *The research base for reading mastery, SRA.* Retrieved on March 24, 2002, from the University of Oregon's Web site: http://darkwing.uoregon.edu.

Guba, E. (1978). *Toward a method of naturalistic inquiry in educational evaluation.* Los Angeles, CA: Center for the Study of Education.

Guba, E. & Lincoln. (1989). *Fourth generation evaluation.* Newburg Park, CA: Sage.

Gunning, T. G. (1992). *Creating reading instruction for all children.* Boston: Allyn & Bacon.

Guthrie, .J. T., & Wigfield, A. (1997). Reading engagement: A rationale for theory and teaching. In J. T. Guthrie & A. Wigfield (Eds.), *Reading engagement: Motivating readers through integrated instruction* (pp. 1–12). Newark, DE: International Reading Association.

Hanushek, E. A. & Jorgenson, D. (1996). *Improving America's schools: The role of incentives.* Washington, DC: National Academy Press.

Hargreaves, A. (1994). *Changing teachers' times.* London: Cassell.

Harmon, J. M., (2000). Creating context for supporting word meaning constructions: Dialogues with struggling middle school readers. In T. Shananhan & F. W. Rodrigues-Brown (Eds.), *49th yearbook of the National Reading Conference* (pp. 331–343). Chicago: National Reading Conference.

Haycock, K. (2001). Closing the achievement gap. *Educational Leadership 58*(6), 6–11.

Hayes, B. L. (1991). *Effective strategies for teaching reading.* Boston: Allyn & Bacon.

Hernandez, C. F. (2003). Eliminating the achievement gap: The study of one Texas school district (Doctoral dissertation, The University of Texas, Austin, 2003) *Dissertation Abstracts International, 64*(12), 4288.

Hirsch, T. (1987). *Cultural literacy and what every American needs to know.* Boston: Houghton Mifflin.

Hobb, D. (1990). School based community development: Making connections for improved learning. In S. Raferty & D. Mulkey (Eds.), *The role of rural schools in community development* (pp. 57–64). Mississippi State, MS: Southern Rural Development Center.

Hodgkinson, H. L. (1992, October). *A demographic look at tomorrow.* Paper presented at the annual fall conference of Personnel Administrators of North Carolina, Raleigh, NC.

Hoffman, J. V. (1992). Leadership in the language arts: Am I whole yet? Are you? *Language Arts, 69,* 366–370.

Horowitz, J. (2000). Teaching ideas: Teaching older nonreaders how to read. *The Reading Teacher, 54*(1), 24–36.

Hoy, W. K., & Miskel, C. G. (1991). *Educational administration: Theory, research and practice* (3rd ed.). New York: Random House.

Hudson, R. F., Mercer, C. D., & Lane, H. B. (in press). *Exploring reading fluency: A paradigmatic overview*. Gainesville, FL: University of Florida.

Humphrey, J. W. (2001). Supporting the development of strong middle grades readers. In J. A. Rycik & J. L. Irvin (Eds.), *What adolescents deserve: A commitment to students' literacy learning* (pp. 120–126). Newark, DE: International Reading Association.

Immegart, G. L. (1988). Leadership and leader behavior. In N. J. Boyan (Ed.), *Handbook of research on educational administration* (pp. 259–278). New York: Longman.

Invernizzi, M., Rosemary, C., Juel, C., & Richards, H. C. (1997). At-risk readers and community volunteers: A 3-year perspective. *Scientific Studies of Reading, 1,* 277–300.

Irvin, J. L. (1998). Reading and the middle school programs for young adolescents. *Middle School Journal, January,* 4–9.

Ivey, G. (1999). Teaching struggling middle school readers. *Education Digest, 65*(2), 60–65.

Janesick, V. (1994). *Stretching exercises for qualitative researchers.* Thousand Oaks, CA: Corwin Press.

Johnson, R. (1994). Attrition rates are going up: Texas rates higher that national average. *Intercultural Development Research Association Newsletter, 11*(9), 6–9.

Joyce, B. R. & Showers, B. (1995). *Student achievement through staff development: Fundamentals of school renewal* (2nd ed.). New York: Longman.

Juel, C. (1988). Learning to read and write: A longitudinal study of 54 children from first through fourth grades. *Journal of Educational Psychology, 80,* 437–447.

Kachigan, S. K. (1986). *Statistical analysis: An interdisciplinary introduction to univariate and multivariate methods.* New York: Radius Press.

Kamps, D. M. & Greenwood, C. R. (2005). Formulating secondary-level reading interventions. *Journal of Learning Disabilities, 38*(6), 500–509.

Keeves, J. P. & Lakomski, G. (1999). *Issues in educational research.* Amsterdam, Netherlands: Elsevier Science, Ltd.

Kozol, J. (1991). *Savage inequalities: Children in America's schools.* New York: Harper Perennial.

Krueger, A. B., & Whitmore, D. M. (2001). The effect of attending a small class in the early grades on college-test taking and middles school test results: Evidence from Project STAR. *Economic Journal, 111*(468), 1.

LaBerge, D. & Samuels, S. J. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology, 6,* 293–323.

Lee, J. (2002). Racial and ethnic achievement gap trends: Reversing the progress toward equity? *Educational Researcher, 31*(1), 3–12.

Levin, H. M. (1986). *Educational reform for disadvantaged students: An emerging crisis.* Washington, DC: National Education Association.

Levine, D., & Eubanks, E. (1992). Site-based management: Engine of reform or pipe dream? Problem, prospects, pitfalls, and prerequisites for success. In J. J. Lane & E. G. Epps (Eds.), *Restructuring the schools: Problems and prospects* (p. 61–82). Berkeley, CA: McCutchan.

Lewis, R. (1999). A write way: Fostering resiliency during transitions. *Journal of Humanistic Counseling, Education & Development, 37,* 200–211.

Ley, T. C., Schaer, B. B., & Dismukes, B. W. (1994). Longitudinal study of the reading attitudes and behaviors of middle school students. *Reading Psychology, 15*, 11–38.

Lezotte, L. W. (1989). Base school improvement on what we know about effective schools. *American School Board Journal, 176*(8), 18–20.

Lezotte, L., & Pepperl, J. (1999). *The effective schools process: A proven path to learning for all.* Okemos, MI: Effective Schools Products.

Liberman, Y., Shankweiler, D., & Liberman, I. Y. (1989). The alphabetic principal and learning to read. In D. Shankweiler & I. Y Liberman (Eds.), *Phonology and reading disabilities: Solving the reading puzzle* (pp. 1–33). Ann Arbor, MI: University of Michigan Press.

Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.

Lincoln, Y., & Guba, E. (1994). *Competing paradigms in qualitative research*. Newbury Park, CA: Sage.

Lincoln, Y., & Denzin, N. (2001). *The American tradition in qualitative research*. Thousand Oaks, CA: Sage.

Lofland, J., & Lofland, L. H. (1995). *Analyzing social settings: A guide to qualitative observation and analysis.* Belmont, CA: Wadsworth.

Loughran, J. & Gunstone, R. (1997). Professional development in residence; Developing reflection on science teaching and learning. *Journal of Education for Teaching, 23*(2), 159–179.

Loveday, E., & Simmons, K. (1988). Reading at home: Does it matter what parents do? *Reading, 22*(2), 84–88.

Lovett, M. W., Lacerensa, L., Borden, S. L., Frijters, J. C., Seteinbach, K. A., & DePalman, M. (2000). Components of effective remediation for developmental reading abilities: Combining phonological and strategy-based instruction to improve outcomes. *Journal of Educational Psychology, 92,* 263–283.

Lundberg, L. (1988). Effectiveness of an extensive program for stimulating phonological awareness in preschool children. *Reading Research Quarterly, 23*(3), 263–284.

Lyon, G. R. (1994). *Frames of reference for assessment of learning disabilities—New views on measurements issues.* Baltimore: Paul H. Brookes.

Lyon, G. R. (1998). Why reading is not a natural process. *Educational Leadership, 55,* 14–18.

Lyon, G. R. (1999). *Statement of the Committee of Education and the Workforce, U.S. House of Representatives.* Hearing on Title I of the ESEA, July 27, 1999. Washington, DC: U.S. House of Representatives.

Lyon, G.R., Alexander, D., & Yaffe, S. (1997). Progress and promise in research on learning disabilities. *Learning Disabilities, 8,* 1–6.

Lyon, G. R., Flecher, J. M., Shaywitz, S.E. Shaywitz, B. A., Torgesen, J. K., Wood, F. B., Schulte, A., & Olson, R.(2001). Rethinking learning disabilities. In C. E. Finn, Jr., R. A. J. Rotherham, & C. R. Hokanson, Jr. (Eds.), *Rethinking special education for a new century* (pp. 259–287). Washington, DC: Thomas B. Fordham Foundation and Progressive Policy Institute.

Lyon, G. R., & Moats, L. C. (1997). Critical conceptual and methodological considerations in reading intervention research. *Journal of Learning Disabilities 30*(6), 578–588.

Maheady, L. (1997). Preparing teachers for instructing multiple ability groups. *Teacher Education and Special Education, 20*(4), 90–125.

Manzo, K., & Sack, J. (1997). Effectiveness of Clinton reading plan questioned. *Education Week, 1,* 28–30.

Marlow, E. (2001). *Reading in the middle school.* Opinion paper (ED455492).

Mastropieri, M., & Scruggs, T. (1997). Best practices in promoting reading comprehension in students with learning disabilities: 1976–1996. *Remedial and Special Education 18*(14), 197–213.

Mather, N. (1992). Whole language reading instruction for students with learning disabilities: Caught in the crossfire. *Learning Disabilities Research & Practice, 7,* 87–95.

McDonald, J. P., Hatch, T., Kirby, E., Ames, N., Haynes, N. M., & Joyner, E. T. (1999). *School reform behind the scenes: How ATLAS is shaping the future of education.* New York: Teachers College Press.

McKenna, M. C., Kear, D. J., & Ellsworth, R. A. (1995). Children's attitudes toward reading: A national survey. *Reading Research Quarterly, 30,* 934–955.

McKeown, M. G., Beck, I. L., Omanson, R., & Perfetti, C. A. (1983). The effects of long-term vocabulary instruction on reading comprehension: A replication. *Journal of Reading Behavior, 15,* 3–18.

Mercer, C., Campbell, K., Miller, M., Mercer, K., & Lane, H. (2000). Effects of a reading fluency intervention for middle schoolers with specific learning disabilities. *Learning Disabilities Research & Practice, 15*(4), 177.

Merriam, S. B. (1988). *Case study research in education: A qualitative approach.* San Francisco: Jossey-Bass.

Merriam, S. (1998). *Qualitative research and case study applications in education.* San Francisco: Jossey-Bass.

Merriam, S. (2001). *Case study research in education: Qualitative research and case study application in education.* San Francisco: Jossey-Bass.

Meyer, M. S., & Felton, R. H. (1999). Repeated reading to enhance fluency: Old approaches and new direction. *Annals of Dyslexia, 49,* 283–306.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). Newbury Park, CA: Sage.

Moats, L. (1999). *Teaching reading is rocket science: What expert teachers of reading should know and be able to do.* Washington, DC: National Institute of Child Health and Human Development (NIH).

Moats, L. C. (2001). Overcoming the language gap. *The American Educator,* 5–9.

National Assessment of Educational Progress. (1999). *NAEP 1998 reading report card for the nation and the states.* Washington, DC: Author.

National Assessment of Education Progress. (2001). *NAEP summary data tables*. Retrieved January 10, 2004, from the U.S. Department of Education's Web site: http://nces.ed.gov/nationsreportcard

National Assessment of Education Progress. (2005). *2004NAEP–Reading: A first look.* Washington, DC: National Center for Education Statistics.

National Center for Education Statistics. (1999). *The condition of education in 2002* (Brief, Pub. No. NCES 2002011). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

National Center for Educational Statistics (NCES). (2002). *Fourth-grade reading highlights 2001*. Washington, DC: Author.

National Commission on Excellence in Education. (1983). *A nation at risk*. Washington, DC: U.S. Government Printing Office.

National Education Goals Panel. (1995). *National education goals report: Building a nation of learners*. Washington, DC: Author.

National Institute of Child Heath and Human Development. (2000). *Report of the National Reading Panel*. Washington, DC: Author.

National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction.* Bethesda, MD: National Institutes of Health, National Institute of Child Health and Human Development.

National Research Council. (1998). *Education and social issues*. Retrieved April 24, 2003, from http://www.national-academies.org

National Science Foundation. (1993). *User-friendly handbook for project evaluation: Science, mathematics, engineering and technology education* (NSF 93-152). Arlington, VA: Author.

National Staff Development Council. (2001). *National Staff Development Council's standards for staff development* (Rev. ed.). Oxford, OH: Author.

Nettles, M., & Perna, L. (1997). *The African American educational data book* (Vol. 2). Fairfax, VA: Frederick D. Patterson Research Institute.

Nicholson, T. (1997). Closing the gap on reading failure: Social background, phonemic awareness, and learning to read. In B. Blackman (Ed.), *Foundations of reading acquisition and dyslexia* (pp. 381–407). Mahwah, NJ: Lawrence Erlbaum.

O'Connor, R. E., Jenkins, J. R., Leicester, N., & Slocum. T.A. (1993). Teaching phonological awareness to young children with learning disabilities. *Exceptional Children, 59*(6)*,* 532–546.

O'Neil, J. (1995). Teacher and technology: Potential and pitfalls. *Educational Leadership, 53,* 10–11.

Parlapiano, E. (1999, December–January). When smart kids can't read. *Child,* 1–33.

Patton, M. (1990). *Qualitative evaluation and research methods.* Newbury Park, CA: Sage.

Perfetti, C. A. (1986). Continuities in reading acquisition, reading skill, and reading disability. *Remedial and Special Education, 7*(1), 11–21.

Popkewitz, T. S. (1980). Paradigms in educational science: Different meanings and purpose to theory. *Journal of Education, 162*(1), 28.

Powers, A. (2003, June 20). *National Assessment of Educational Progress: Reading: An analysis.* Retrieved March 10, 2005, from the Empower America Web site: http://www.empoweramerica.org/stories/storyreader$803

Pressley, M. & Allington, R. L. (1999). What should educational research be the research of? *Issues in Education: Contributions form Educational Psychology, 5*(1), 1–35.

Purkey, S. C. & Smith, M. S. (1982). Effective schools: A review [Special issue]. *Elementary School Journal, 83*(4), 426–452.

Putnam, R. T., & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Leadership, 29*(1), 4–15.

Rasinski, T. V. (1990). Investigating measures of reading of fluency. *Educational Research Quarterly, 14*(3), 34–44.

Rasinski, T., & Padak, N. (1990). Multicultural learning through children's literature. *Language Arts, 67,* 576–580.

Rasinki, T. & Padak, N. (2000). *Effective reading strategies: Teaching children who find reading difficult* (2nd ed.). Upper Saddle River, NJ: Prentice-Hall, Inc.

Rayner, K., Foorman, B. R., Perfetti, D., Pesetsky, D., & Seidenberg M. S. (2002). How should reading be taught? *American Scientific, 286*(3) 84–91.

Raywid, M. (1992).Why do these kids love school? *Phi Delta Kappan, 73*(8), 631–633.

Reid, R. (1995). Assessment of ADHD with culturally different groups: The use of behavioral rating scales. *School Psychology Review, 24,* 537–560.

Reyes, P. (1990). Factors affecting the commitment of children at risk to stay in school. In J. Lakebrink (Ed.), *Children at risk* (pp. 150–175). Chicago: G. Anderson.

Reyes, P., Scribner, J., & Scribner, A. (1999). *Lessons from high-performing Hispanic schools: Creating learning communities.* New York: Teachers College Press.

Richardson, L. (1994, April) A class apart: Minority students languish in special education system. *The New York Times, 23,* 27.

Richardson, V., Anderson, P., Tidwell, D., & Lloyd, C. (1991), The relationship between teacher's beliefs and practices in reading comprehension. *American Educational Research Journal 28,* 559–586.

Rosenholtz, S. (1985). Effective schools: Interpreting the evidence. *American Journal of Education, 93,* 376.

Rosenshine, B., & Meister, C. (1994). Reciprocal teaching: A Review of the research. *Review of Educational Research, 64,* 479–530.

Rosenshine, Meister, C. & Chapman, (1996). Teaching students to generate questions: A review of the intervention studies. *Review of Educational Research, 66,* 181–221.

Ruddell, M. Rapp. (2000). *Teaching content reading and writing* (3rd ed.). New York: John Wiley & Sons, Inc.

Schön, D. A. (1987). *Educating the Reflective Practitioner: toward a new design for teaching and learning in the professions.* San Francisco: Jossey-Bass.

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization.* New York: Currency Doubleday.

Senge, P. (2000). *A fifth discipline resource: Schools that learn.* New York: Doubleday.

Shulman, J., Lotan, R., & Witcomb, J. (Eds.). (1998). *Group work in diverse classrooms: A casebook for educators*. New York: Teachers College Press.

Slavin, R., & Madden, N. (2001). *One million children: success for all*. Mahwah, NJ: Erlbaum.

Smith, C. R. (1998). From gibberish to phonemic awareness: Effective decoding instruction. *Teaching Exceptional Children, 30*(6), 20–25.

Snow, C. E., Burn, M., & Griffin, P. (Eds.). (1998). *Preventing reading difficulties in young children.* Washington, DC: National Academy Press.

Srivastava, M. S., & Carter, E. M. (1983). *An introduction to applied multivariate statistics.* New York: North-Holland.

Stake, R. E. (1995). *The art of case study research.* Thousand Oaks: Sage.

Stallings, J. A., Needles, M., & Stayrook, N. (1979). *How to change the process of teaching basic reading skills in secondary schools.* Menlo Park, CA: SRI International.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Ground theory procedures and techniques.* Newbury Park, CA: Sage.

Strauss, A. L., & Corbin, (1998). *Basics of qualitative research: techniques and procedures for developing ground theory* (2[nd]ed.). Newbury Park, CA: Sage.

Sturtevant, E. G. (1996). Lifetime influences on the literacy related instructional beliefs of two experiences high school teachers: Two comparative case studies. *Journal of Literacy Research, 28,* 227– 258.

Sweet, A. P. & Anderson, J. I. (Eds.). (1993). *Reading research into the year 2000.* Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Sweet, A. P., Guthrie, J. T., & Ng, M. M. (1998). Teacher perception and student reading motivation. *Journal of Educational Psychology, 90,* 210–223.

Teddlie, C., & Springfield, S. (1993). *Schools make a difference: Lessons learned from a 10-year study of school effects.* New York: Teachers College Press.

Texas Education Agency. (2004). *The Texas reading initiative.* Austin, TX: Author.

Tomesen, M., & Arnoutse, C. (1998). Effects of an instructional program for deriving word meanings. *Educational Studies, 24*(1), 107–128.

Torgesen, J. K., Alexander, A. W., Wagner, R. K., Rashotte, C. A., Voeller, K. K., Conway, T., & Rose, E. (2001). Intensive remedial instruction for children with severe reading disabilities: Immediate and long-term outcomes from two instructional approaches. *Journal of Learning Disabilities, 34*(1), 35–58.

Torgesen, J. K. & Mathes, P. M. & Grek, M. L. (2002). *Effectiveness of an early intervention curriculum that is closely coordinated with the regular classroom reading curriculum February.* Paper presented at the Pacific Coast Research Conference, San Diego, CA.

Torgesen, J. K. Morgan, S. T. & Davis, C. (1992). Effects of two types of phonological awareness training on word learning in kindergarten children. *Journal of Educational Psychology, 84*(3), 364–370.

Torgesen, J. K., Rashotte, C., Alexander, A., & MacPhee, K. (2002). Progress toward understanding the conditions necessary for remediating reading difficulties in older children. In B. Foorman (Ed.), *Preventing and radiating reading difficulties: Bring science to scale* (pp. 275–298). Baltimore, MD: York Press.

Torgesen, J. K., Wagner, R. K., Rashotte, C. A., Alexander, A. W., & Conway, T. (1997). Preventive and remedial intervention for children with severe disabilities. *Learning Disabilities: A multidisciplinary Journal, 8*(1), 51–61.

Tuma, J. M. (1989). Mental health services for children: The state of the art. *American Psychologist, 44,* 188–189.

U.S. Department of Education. (1999). *The NAEP 1998 Reading Report card: National and state highlights.* Washington, DC: National Center for Educational Statistics.

U.S. Department of Education. (2002). *Inside No Child Left Behind Act of 2001* [Pub. L. 107-110 (2002)]. Washington, DC: U.S. Government Printing Office.

U.S. Department of Education. (2002). *Twenty-fourth annual report to Congress on the implementation of the Reading.* Washington, D. C.: National Center for Educational Statistics.

Vaughn, S., Hughes, M. T., Moody, S. W. & Elbaum, B. (2001). Instructional grouping for reading for students with LD: Implications for practice. *Intervention in School and Clinic, 36*(3), 131–137.

Vellutino, F. R. (1979). *Dyslexia: Theory and research.* Cambridge, MA: The MIT Press.

Vellutino, F. R., Scanlon, D. M & Lyon, G. R. (2000). Differentiating between difficult-to remediate and readily remediate poor readers: More evidence against the IQ-achievement discrepancy definition of reading disability. *Journal of Learning Disabilities, 33*(3), 223–238.

Wang, J. (1998). Opportunities to learn: The impacts and policy implications. *Educational Evaluation and Policy Analysis, 20*(3), 137–156.

Wayson, W. (1988). *Up excellence: The impact of the excellence movement on schools.* Bloomington, IN: Phi Delta Kappa.

Wheaton, C. & Kay, S. (1999). Every child will read—We guarantee it. *Educational Leadership, 57*(2), 52–56.

Williams, J. P. (2001). Theme instruction for improving disabled readers' comprehension. *Perspectives, 27*(2), 25–28.

Wilson, B. (2000). Middle-and high school students: Learning to read and write despite challenges. *The Decoder, 9*(1), 1–7.

Wolfram, W. (1994). The phonology of a sociocultural variety: The case of African American vernacular English. In J. E. Bernthal & N. W. Bankson, (Eds.), *Child phonology: Characteristics, assessment, and intervention with special populations* (pp. 227–244). New York: Thieme Medical Publisher.

Woods, K. D. (1998). Helping struggling readers read. *Middle School Journal, May,* 67–70

Yin, R. (1994). *Case study research: Design and methods* (2nd ed.). Newbury Park, CA: Sage.

Yopp, H. K. (1992). Developing phonemic awareness in young children. *Reading Teacher, 49*(1), 20–29.

Zemelman, S., Daniels, H., & Hyde, A. (1998). *Best practice: New standards for teaching and learning in America's schools.* Portsmouth, NH: Heinermann.

Zimmerman, J., & Brown, C. (2003). Let them eat more than phonics. *Phi Delta Kappan, 84*(8), 603–605.

Vita

Kathryn Beatrice Chilton was born in Columbus, Ohio. She is the oldest of three daughters of William and Beatrice Foster. In 1982, she graduated from Bowling Green State University, Bowling Green, Ohio with a B.S. degree in Accounting/Business Education. She married her husband, Dr. Earl W. Chilton II, in 1982, and they have three sons, Earl III, William, and Michael. From 1983 through 1985 she taught at Southern Ohio College and earned the Teacher of the Year Award in 1984. In 1986, she moved to LaCrosse, Wisconsin and earned a M.Ed. in Education/Professional Development in 1989 from the University of Wisconsin-LaCrosse (UWL). From 1988 through 1990 she served as the Assistant Director of Minority Affairs at UWL, and in 1990 she earned the Minority Student Leadership Conference Appreciation Award for her efforts. In 1992, she moved to Austin, Texas and began teaching with the Austin Independent School District in 1983 where she has variously served as Language Arts Department Chair and Curriculum Specialist. She earned the Teacher of the Year Award at Dobie Middle School in 2001. Ms. Chilton holds teaching certification in both Texas and Wisconsin. She is certified in the area of Elementary education (1st–8th grades), and she holds Gifted and Talent Education certification in the Austin Independent School District. Additionally, she belongs to various professional organizations such as Education Austin and the National Council for Language Arts. Ms. Chilton is also experienced in the art of oral presentation. She has given a number of professional presentations including training

sessions in sensitivity, reading intervention, TAAS writing intervention for middle school students, SOAR and Junior Great Books Training for reading programs, and school-wide district benchmark testing for the TAAS. She currently works for the Austin ISD as an educator.

Permanent Address: 16813 Crystal Downs Cove, Austin, Texas 78717.

This Dissertation was typed by the author.