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READING INTERVENTION AND EXTENDED-DAY READING PROGRAMS FOR INTERMEDIATE GRADE STUDENTS: A CASE STUDY

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READING INTERVENTION AND EXTENDED-DAY READING PROGRAMS FOR INTERMEDIATE GRADE STUDENTS: A CASE STUDY

by

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Dedication

This dissertation is dedicated to my grandmother, Jessie Porter, who has inspired me and supported me in every way possible throughout my life.

And to my grandfather, Frank B. Rhea, Jr., who has been proud of me every day of my life and whose granddaughter I am so proud to be.

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Reading Intervention and Extended-Day Reading Programs for Intermediate Grade Students: A Case Study

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The purpose of this study was to develop a case study to understand the processes and outcomes of reading intervention as conducted in the specific context of a large school district in north Texas. In particular, the study examined how students were identified as needing reading intervention and their subsequent success on measures of reading achievement over a period of three years in comparison with students who were not identified for reading intervention. This study employed a sequential mixed methods design in which the collection and analysis of quantitative data preceded qualitative data collection and analysis. Interview data were collected to illuminate the processes and challenges of conducting reading intervention in the classroom setting.

The findings determined that the district is successful in its aims related to reading achievement on standardized measures of reading in grades three, four, and five despite a lack of evidence that success could be contributed solely to the provision of reading intervention. Three findings emerged: 1) students were served with a combination of services determined by each campus in the study, 2) teachers' provision of reading

instruction did not align with district recommendations, and 3) students identified for reading intervention and served with either of the intervention programs were successful on measures of reading achievement but did not attain similar levels of achievement as non-identified peers.

Table of Contents

List of Tables

List of Figures

CHAPTER ONE - INTRODUCTION

INTRODUCTION

The convergence of state and federal policies and legislation regarding student achievement and accountability has created a unique climate in American educational history that is ripe for the proliferation of programs developed to target the nation's at-risk students. How reading is taught to whom has been a flashpoint for the fervor around creating and disseminating policy that dictates program and resource allocation.

Early reading has been a critical feature of Texas education reform in the last decade. The reauthorization of the Elementary and Secondary Education Act in 2001 called the No Child Left Behind Act (NCLB) also makes early reading a cornerstone that has altered the programs and policies of American public schools. In an effort to close the achievement gap, Texas has implemented the Texas Essential Knowledge and Skills (TEKS) and the Texas Assessment of Knowledge and Skills (TAKS). While NCLB has been the impetus for many states to enact more stringent accountability systems, Texas had previously implemented such systems. NCLB has required states to develop educational standards and accountability plans that demonstrate adequate yearly progress using standardized measures of student achievement on an annual basis. One component of NCLB, the goal of all children reading on grade level, has been addressed through accountability standards for reading achievement in third and fifth grade for Texas students. Texas students in grades three and five must pass the reading TAKS test in

order to progress to the next grade level, thereby creating high-stakes testing at the elementary level. In order to address the needs of students in passing these high-stakes tests, Texas public schools have developed various forms of programs and initiatives.

This chapter will provide background and history of recent policies and legislation at the federal and state levels and discuss how they relate to reading instruction.

TEXAS READING INITIATIVE

In 1997, the 75th Texas State Legislature responded to the challenge set forth by Governor George W. Bush to "focus on the most basic of educational goals-teaching children to read" by establishing the Texas Reading Initiative under the supervision of the Texas Education Agency (Texas Education Agency, April 5, 2005). Along with state funding, explicit guidelines were provided that included that all reading instruction would be based on "scientific research-based methods of reading instruction that have been proven to work" (Texas Education Agency, April 5, 2005). Early reading assessment instruments in English and Spanish would be designed to provide diagnostic data on individual students to guide reading instruction. Also, Teacher Reading Academies would be created for teachers and administrators in order to improve reading instruction in Texas Kindergarten and elementary classrooms (Texas Education Agency, April 5, 2005). The Texas Reading Initiative included six components (Texas Education Agency, March 17, 2005):

1. Leadership Development
2. Diagnostic Assessment – the Texas State Commissioner of Education must approve a list of assessments that may be used to diagnose reading skills and comprehension development.
3. Comprehensive Research-Based Program
4. Immediate Intervention
5. Progress Monitoring
6. End of the Year Student Performance Analysis

In 1999, the 76th Texas State Legislature provided for the development of Kindergarten Teacher Reading Academies, First Grade Teacher Reading Academies, and Second Grade Teacher Reading Academies. "Beginning with the teachers of children who entered Kindergarten in the fall of 1999, more than 17,385 teachers participated in the Kindergarten Teacher Reading Academies in the first two years" (Texas Education Agency, March 22, 2005). The 77th Texas State Legislature added Third Grade Teacher Reading Academies and Fourth Grade Teacher Reading Academies in 2001. In 2003, due to budget shortfalls, the 78th Texas State Legislature eliminated funding for the Fourth Grade Teacher Reading Academies and shifted remaining allocations to allow for the distribution of training through booklets and CDs via regional education service centers. Kindergarten, First, Second, and Third Grade Teacher Reading Academies were made available in a web-based format. The roll-out of the Teacher Reading Academies were designed to parallel the phase-in required by the 76th Texas State Legislature that

students meet a passing standard on a reading assessment for grade promotion. (Office for Planning, Grants, and Evaluation, 2005).

THE STUDENT SUCCESS INITIATIVE

In 1996, Texas State Board of Education rules were repealed that limited the number of retentions for students and that required remediation programs in addition to allowing students to be placed in the next grade levels (Texas Association of School Boards, 2006). These rules preceded the 76th Texas State Legislature's development of a process that required students to pass a statewide assessment in reading in grade three, and later grade five, in order to be promoted to the next grade. The Texas Reading Initiative was transformed into the Student Success Initiative and social promotion was effectively eliminated in Texas (Texas Education Agency, April 5, 2005). As specified in the requirements of the Student Success Initiative, students who do not meet the passing standard on the assessment measure may only advance to the next grade level if the Grade Placement Committee determines unanimously that the student will likely perform on grade level with accelerated instruction (Office for Planning, Grants, and Evaluation, 2005). Students have three opportunities to meet the passing standard before the Grade Placement Committee is convened to determine whether the student should be promoted.

Although district improvement plans have been required to address strategies for improving student performance and included accelerated instruction, since 1995 these plans did not clearly require the identification of individual students (Texas Association of School Boards, 2006). In 1999, when the Texas State Legislature created the Student Success Initiative, it was intended to improve individual student academic achievement

related to the Texas Essential Knowledge and Skills (TEKS) at each grade level and promote student success in subsequent grade levels (Texas Association of School Boards, 2006). As part of SSI, local school districts have been required to administer diagnostic tests in reading to kindergarten, first, and second grade students and identify individual students who are at-risk for reading difficulty. Additionally, local school districts have been required to provide accelerated instruction for identified students under a program called Accelerated Reading Instruction (ARI) and Accelerated Math Instruction (AMI) that will be further described in the following section.

The student cohort that was in kindergarten in the 1999-2000 school year would have been in third grade in the 2002-2003 school year, when SSI was first applicable in terms of student promotion to the next grade level contingent upon performance on the statewide assessment measure of reading (TAKS). By the 2004-2005 school year the same cohort would have been in fifth grade, when grade promotion based on performance on a statewide assessment measure was expanded to include reading and math.

ACCELERATED READING INSTRUCTION

Student performance on a statewide assessment measure as a baseline for grade advancement, and accompanying intervention, also known as the Student Success Initiative (SSI), has its roots in social promotion guidelines and legislation that occurred in Texas in the mid-1990s. In order to ensure the goals of the Student Success Initiative, funding is provided to school districts and charter schools on a non-competitive formula

basis to implement intensive, targeted reading intervention programs (Texas Education Agency, March 21, 2005).

"A comprehensive program in grades Kindergarten, Grade 1, and Grade 2 should provide instruction in ALL critical areas of reading – phonemic awareness, alphabetic principle, decoding, fluency, and vocabulary development" (Texas Education Agency, March 21, 2005). Districts must identify students in grades K-5 who are at-risk for reading difficulty according to Texas Education Code 28.006. Results from diagnostic reading assessments are required as the primary criteria for identification as at-risk for reading difficulty. The diagnostic assessments, depending on grade level, must address the five core elements of reading: phonemic awareness, phonics, comprehension, vocabulary, and fluency (Texas Education Agency, 2005a). Students who are not identified at the beginning of the year as at-risk may be identified and served after the first administration of the Reading TAKS in grades three and five if the student does not meet the passing standard on the assessment.

The Texas Commissioner of Education approves a list of assessment instruments that may be used to identify kindergarten, first and second grade students for reading intervention. In order to be reimbursed by the state, school districts must use a complete option from the approved Commissioner's List of Reading Instruments (Texas Education Agency, 2005b). Although the costs will not be reimbursed, Local Education Agencies may elect to use an alternate method of assessment that is not on the Commissioner's approved list with the recommendation of a district-level planning and decision-making committee. All instruments in an alternate method of assessment must be based on

scientific research and include the five criteria used for placement on the Commissioner's list: phonological awareness, decoding, vocabulary, comprehension, and fluency (Texas Education Agency, 2005b). Students in grades three and higher should be identified using other diagnostic assessments, including the Texas Assessment of Knowledge and Skills (TAKS) in reading.

In the 2003-2004 school year, nearly 463,000 students were identified as struggling in reading. Of those students, 388,619 students were served with ARI funds in Texas (Office for Planning, Grants, and Evaluation, 2005). In 2003-2004, Local Education Agencies received $1,007 for each student who did not pass the first administration of the 2003 Grade 3 TAKS reading assessment (Office for Planning, Grants, and Evaluation, 2005). By the 2005-2006 school year, districts received approximately $1442 for each student who did not pass the first administration of the grade 3 reading TAKS.

"Upon having identified students who require accelerated instruction, districts may determine at their discretion how they will coordinate funds for the instruction" (Office for Planning, Grants, and Evaluation, 2005, p. 9). Districts may allocate additional funds from other sources to supplement funds to provide Accelerated Reading Instruction as well as allocate ARI and AMI funds interchangeably between services for students identified for reading intervention or math intervention. Local Education Agencies retain discretion to determine the funding and structure of services for each identified student although funds must be spent within the award year and will not roll forward (Office for Planning, Grants, and Evaluation, 2005). It should also be noted that

no more than 15% of ARI/AMI funds may be spent on indirect costs, such as transportation.

The Texas Education Agency provides some recommendations in structuring the ARI / AMI programs, although most programs structures and choices remain at the discretion of the school district. TEA recommends that districts provide intervention during the school day due to "timeliness and effectiveness" (Texas Education Agency, 2005a). TEA guidelines state that intervention should be provided to students throughout the school year and that students who continue to be identified at the end of the spring semester may be eligible for summer intervention. TEA recommends that fund expenditures should first be allocated to intervention students who need the most assistance before providing additional assistance or funding to other students who are struggling in reading. TEA states that intervention should be provided promptly after initial identification and early reading diagnostic instruments should be administered multiple times to provide data regarding the intervention. TEA recommends that certified teachers provide 30-45 additional minutes of targeted reading instruction during the regular school day with flexible grouping of up to four children with one adult.

Beginning in the 05-06 school year, districts were required by TEA to complete a grant application to receive the non-competitive ARI / AMI funds and required to submit ARI / AMI program evaluation data elements (Texas Education Agency, 2005a). Some of the data elements pertaining to ARI included the number of students in the district enrolled in grades K-6, the number of students identified as at-risk for reading difficulty, and the number of students receiving reading intervention. Districts were also required to

submit the number of students on grade level at the end of the year and the number of identified students in grades 3-6 who passed the reading and math sections of TAKS. Districts also reported similar information regarding students identified for reading intervention but who were served exclusively from alternate funding sources.

CURRENT READING POLICY

How reading is taught to whom is derived from national and state recommendations for the teaching of reading via the conduit of policy and legislation. In this section, we will consider the interplay of policies and legislation at the national and state level.

National Level – NCLB

The reauthorization of the Elementary and Secondary Education Act in 2001 was titled the No Child Left Behind Act (NCLB). NCLB put forth key provisions for reading and literacy instruction as well as accountability systems based on student participation in standardized assessment systems and their performance on standardized assessment measures. NCLB provided Reading First grants to states that developed scientifically-based reading programs to improve literacy in kindergarten through second grade

students. Reading First included early childhood reading instruction and made funds available to states for pre-school programs, including Head Start centers.

No Child Left Behind legislation initiated federal requirements that students be assessed in reading and math on an annual basis in grades three through eight. States are required to report individual student performance to parents as well as develop mechanisms for reporting group assessment results by school with the results disaggregated by race, gender, English language proficiency, disability, and socio-economic status. In an effort to close achievement gaps, NCLB included Annual Yearly Progress (AYP) mandates that schools must demonstrate that disadvantaged students are making progress. NCLB required that states adopt a system of rewards and consequences for school based on whether or not performance objectives are met.

The Texas Reading Initiative, the Student Success Initiative in Texas, and Accelerated Reading Instruction all preceded NCLB. There are several elements that are nearly identical between the Texas state system and NCLB that make this research important to those who reside outside of Texas. First, both systems rely heavily on a concept of scientifically-based reading research and require that reading programs and assessments adhere to a particular interpretation of that concept based on the findings of the National Reading Panel. The provisions for reading instruction were based on the recommendations of the National Reading Panel that will be specifically discussed in the following section. Second, both systems call for reading intervention beginning at least in kindergarten and annual assessments in reading beginning in grade three. These age markers are part of an effort to have children reading on grade level by a target date.

Third, both systems require a series of consequences for failure on the annual assessments that begin in third grade.

National Reading Panel

In 1997, the United States Congress requested that, in consultation with the Secretary of Education, the Director of the National Institute of Child Health and Development convened a national panel to investigate research-based knowledge of reading, specifically including effective methods for teaching children to read. The panel included fourteen scientists of reading research, representatives of colleges of education, reading teachers, educational administrators and parents and was charged with reporting its findings by November 1998. The NRP held regional hearings from which it adopted the topics of study that included: phonemics awareness instruction, phonics instruction, fluency, comprehension, teacher education and reading instruction, and computer technology and reading instruction. The findings of the NRP will be discussed in the following chapter.

Reading First

The creation of Reading First was authorized through NCLB legislation in 2001. The intent of the program is to put "proven methods of early reading instruction in classrooms" (United States Department of Education, 2006). Based on scientifically-based reading research, Reading First awards competitive grants to state education

agencies to implement "high quality, evidence-based" reading programs (United States Department of Education, 2006). Reading First received appropriations of $1,023,923,000 in the first year, 2004. Texas was awarded $72 million in the first year. Used in conjunction with the extant Accelerated Reading Instruction program, the Reading First grant in Texas made local education agencies eligible for various types and sources of additional resources and funding. State and federal policies became intertwined through allocations from Reading First.

Texas policies and legislation mandated that teachers and schools carry out reading instruction within specified parameters, then provided funding for dictates to be accomplished. In the following years, federal policies and legislation also required that school leaders and teachers attend to reading instruction in specific ways and allocated large sums to assist schools in meeting the goals of the legislation. The rationale for this dissertation rests in the connections between state and federal policies, how schools and districts have implemented the policies, and to what extent the implementation has been effective in serving children.

RESEARCH QUESTIONS

The impetus for this research is based in the ways that federal policy and legislation, state policy and legislation, and district needs and considerations have intersected to impact the ways that struggling readers are served and assessed. This dissertation will explore how third grade students who are identified for and served through reading intervention programs progress in measures of reading achievement and

perform on standardized tests in comparison to non-identified students over a period of three years. More specifically:

1. Does participation in reading intervention and extended-day reading programs significantly narrow the gap between students who are identified as at-risk for reading difficulty and students not identified as at-risk for reading difficulty?
2. What are the features of reading intervention and extended-day reading as implemented in various schools in a Texas school district?

Context of the Study

The setting of the study was one of the largest public school districts in Texas with over 55,000 students enrolled during the years of the study, 2003-2006. The district is located in the North Texas area and combines three communities into one consolidated school district. See Appendix A for a timeline of the study within the context of national and statewide reading initiatives.

The district has implemented an extensive transportation system and school choice program due to a desegregation order. During a thirty-day period in the spring semester, students may select any of the sixty-seven elementary or secondary schools they wish to attend if they plan to provide their own transportation. Students who require transportation are limited by attendance zones. As this district was considered a "participant," the district is described more specifically in the participant section of chapter three.

How the district implemented ARI

Clover ISD implemented Accelerated Reading Intervention (ARI) as required by Texas Education Code in 1999-2000 with the cohort of kindergarten students who would later become the first cohort who would be required to pass the reading TAKS in order to be promoted to the next grade level as required by the Student Success Initiative (SSI). This dissertation will investigate the progression of students across three years, from the fall of 2003 until the spring of 2006.

To identify kindergarten through second grade students, Clover ISD selected from the Commissioner's list of approved reading instruments. The district opted to administer the Texas Primary Reading Inventory for English-speaking students enrolled in the general education or English as a Second Language program in grades K-2 and the Tejas Lee for Spanish-speaking students enrolled in the bilingual program in grades K-2.

In October 2003, third grade teachers identified students for reading intervention according to the district criteria of low achievement on their students' second grade end-of-year Texas Primary Reading Inventory (TPRI) results. Teachers compiled results from the TPRI that included four graphophonemic indicators, word per minute fluency, and comprehension questions. In October 2003, during the year of the study in which third grade students were identified, the district provided instructions that a student should be identified for intervention if the student was not proficient in four of the six tasks. Additionally, teachers could identify students for intervention based on administration of the end-of-year second grade TPRI at the beginning of third grade if scores were unavailable for a student.

In October 2004, teachers identified fourth grade students as needing intervention if the student obtained a raw score of less than 24 on the third grade reading TAKS. Students who did not participate in reading TAKS in third grade were administered a release reading TAKS and identified for reading intervention if the score was less than 24. In October 2005, teachers identified fifth grade students as needing intervention if the student obtained a raw score less than or equal to 27 on the fourth grade reading TAKS. Again, students who did not participate in reading TAKS in fourth grade were administered a release reading TAKS and identified for reading intervention if the score was less than or equal to 27.

Clover ISD utilized at least two programs to serve students identified for reading intervention: small-group reading intervention during the school day and small-group reading instruction that took place in extended-day or extended-week programs.

Students who were identified for reading intervention were required to be served in a small group of four to six students with a certified teacher for a minimum of thirty minutes each day. The teacher provided instruction based on student needs without a specified format. The district provided materials for use in intervention in conjunction with the state-adopted textbook series and other supplemental purchases. However, neither materials nor content was mandated by the district beyond time, group size, and content area (reading).

Extended-day reading also consisted of a small group with no more than six students with a certified teacher. The time was variable as extended-day program design varied across campuses. The district again provided materials, though their use was not

mandatory. Campuses had discretion to purchase and utilize appropriate supplemental materials for reading instruction. The specifications were limited to group size and content area for extended-day reading. Owing to the bussing program in the district, campuses had discretion in design of the program, so variances occurred in program design between a two-hour program on Saturday mornings, a ninety-minute program on one day after school, or two days after school for forty-five minutes, or a combination of these times.

For each of the three years of the study, the district reported Student Success Initiative data to the state for compilation in the AEIS report. In 2003-2004, 8% of students required accelerated instruction in third grade, meaning that they had not passed the first administration of reading TAKS. However, of third grade students who took reading TAKS, 97% of students met the passing standard by the second administration.

By 2004-2005, SSI had expanded to include third and fifth graders. In the district, the percentage of students who required accelerated instruction remained at 8% of third grade students in contrast to 21% of fifth grade students who required accelerated instruction. Of third and fifth grade students who took reading TAKS, 96% of third grade students and 90% of fifth grade students met the passing standard on either the February or April administration.

In 2005-2006, the percentage of third grade students who required accelerated instruction in reading grew to 10% while the percentage of fifth grade students who required accelerated instruction in reading fell to 17%. Of third and fifth grade students

who took reading TAKS, 95% of third grade students and 91% of fifth grade students met the passing standard on either the February or April administration.

Design and Overview of Study

This is a mixed methodology case study that investigates the way that one public school district implemented state and national mandates regarding reading intervention. Students will be grouped according to their participation in reading intervention or extended-day reading as well as by ethnicity and Limited English Proficiency status for analyses. Students' TAKS results, achievement on norm-referenced testing, and student characteristics will be analyzed to determine whether a statistically significant difference exists in reading test performance between students identified as at-risk for reading difficulty who have participated in intervention provided by the school district and students who are not identified as at-risk for reading difficulty who participate in general education in the school district.

Interviews will be conducted at representative school sites and analyzed to describe the features of intervention as implemented in this school district. Analysis of extant records and memoranda will be conducted to enrich the description of the policies developed by the district to meet state and federal requirements.

Significance of the Study

Each year, Texas public school districts acquire significant funding to conduct reading intervention and hold extended-day programs at elementary campuses.

Additionally, substantial human and material resources are allocated to support extended-day and reading intervention programs. To make instructional and programmatic decisions, it is relevant for district and campus leadership to know the trends of student performance within and between groups identified for intervention programs. This project will be a descriptive analysis of third through fifth grade students who are identified for reading intervention as mandated by Texas Education Agency guidelines and/or identified for extended-day programs for the 2003-2006 school years and how these students perform on standardized measures of reading both in response to intervention and in comparison to non-identified peers. Third and fifth grade students will be the focus of this study due to the high stakes Reading TAKS linked to grade promotion and the subsequent increased allocation of resources to meet the standard.

Although reading research proliferates, very few research endeavors have sought to examine the implementation of reading intervention at the district-level. Most reading research is small-scale, studying the impact of an intervention on a small group of students or, at most, with one or two classrooms. Additionally, there is a lack of longitudinal studies that look at the identification and de-identification process of students over time in the intermediate grades. This research seeks to understand and communicate how one district implemented state mandates and faced the choices and challenges inherent in fulfilling externally-mandated requirements.

SUMMARY

This study will investigate a reading intervention program in a large, urban school district using statistical analysis to determine whether students identified for and served by reading intervention have higher levels of reading success as measured on standardized tests of achievement associated with program participation, and, in comparison to non-identified students. This study will also describe four representative schools within the district using interviews and document analysis to provide a rich description of the ways that campuses seek to effectively improve reading achievement.

CHAPTER TWO – LITERATURE REVIEW

This literature review brings together themes that converge in the practical implementation of programs in contemporary public schools. Since this dissertation concerns reading intervention, then naturally the first area of discussion regards the features of effective intervention, including the content of reading instruction and models of intervention. Instructional programs, however, transcend subject area, and this discussion could not be complete without including students and teachers. Due to the intent of intervention in relation to particular students, the literature that I have reviewed focuses on at-risk students with special attention to students who learn English as a second (or third or fifth) language, what it may mean to be an at-risk student, and what

that may mean within the context of schools. I have included some discussion about high-stakes testing and its implications for students due to the prevalence of testing both in the intervention in this study and in the data collection and analysis processes of this dissertation. Finally, I conclude this chapter with a review of literature regarding the development of teacher knowledge and how teachers use their knowledge and power in the classroom setting.

INTRODUCTION TO READING INTERVENTION

Allington and Walmsley (1995, p. 254) described an unfortunate, although persistent, state of affairs when they wrote, "Frequently innovative programs are introduced, are highly successful for a year or two, and then run out of steam. Thus a few students are given the intensive support they need for a year or so. Then the support is withdrawn or becomes slack again, and the students return to the very programs that failed them in the first place." In their study of Title I and Chapter I compensatory programs, Borman, et al. (2001, p.109) noted that, "It may be naïve to expect categorical programs to eradicate the achievement differences between participating students and their more advantaged nonparticipating peers." However, they also "documented strategies that may help students placed at risk achieve at relatively high levels" (Borman, et al., 2001, p. 109). This portion of the literature review will address the components of reading instruction and elements of design for intervention programs as most typically encountered in American public schools in an effort to document effective intervention that may serve struggling students in reading.

PART I – READING INTERVENTION

Features of Effective Intervention

A variety of models for effective reading intervention compete in the contemporary landscape of reading research. I will review some of the more prominent models that include generalizable components not restricted to the implementation of a packaged reading program. Several models of intervention will be included in this section along with a summary of their comparable, salient properties.

Coyne, Zipoli, and Ruby (2006) developed a conceptual framework for reading instruction and intervention that includes three components: content of instruction, delivery of instruction, and timing of instruction. Through their review of contemporary reading literature, they suggested that effective reading instruction includes the National Reading Panel's five pillars of reading instruction (to be reviewed in the following section) taught explicitly and directly with supplementary scaffolding in beginning reading instruction in conjunction with early intervention and prevention before third grade. Other researchers have also shown that interventions demonstrate greater effect sizes when the intervention occurs in earlier grades (Borman et al., 2005a; and Elbaum et al., 2000).

Linan-Thompson and Hickman-Davis (2002) documented that effective instruction must be of sufficient length (minutes per session), intensity, and duration over the school year. Their intervention design for students at-risk of developing a reading disability featured three different grouping sizes, but all groups received 58 consecutive,

30-minute daily sessions that included the same instructional components: fluent reading, phonological awareness, instructional-level reading, and word study. Participating students made significant gains (at a 0.05 level) that persisted over time. Similarly, Elbaum, et al., (2000) concluded that (a) using trained personnel for tutoring, (b) identifying students in early grades, (c) including reading comprehension as a primary focus, and (d) having longer periods of intervention were important indices for effective reading intervention.

"The gains over the years have demonstrated that two sessions of one-on-one tutoring per week, by a trained, supported and supervised community volunteer for a minimum of twenty weeks, can be an effective and affordable alternative intervention for children at risk for reading failure" (Invernizzi, et al, 1997, p. 277). In contrast, Reading Recovery, one of the most widely recognized models of reading intervention, is characterized by 30 minutes of daily one-on-one tutoring sessions with a specially trained, certified teacher for an average period of twelve to twenty weeks (Education Commission of the States, 2000). Another well-known reading intervention model that includes trained tutors as an essential component, Success for All, has demonstrated greater gains in reading when comparing demographically similar groups for students who participated in focused literacy intervention over time (Borman, et al. 2005b).

Juel (1996) found that, in one-on-one tutoring, four forms of activities and interactions were important to effective intervention with first-graders. They were: a) reading texts that contained multiple repetitions of the same words and word families, b) direct instruction about letter-sound relationships in words, c) tutors repeatedly

scaffolding instruction on the identification and spelling of words, and d) the student hearing the tutor model how to identify or spell unknown words (Juel, 1996).

In summary, the studies and models discussed above consistently indicate four features of effective reading intervention. They: a) have consistent content of reading instruction, b) use trained personnel for tutoring, c) include a program design that addresses the length of instructional sessions and duration of the intervention, and d) retain small group sizes. I will discuss each of these components specifically in the following sections.

Content of reading instruction

I will briefly discuss the elements of reading instruction as they provide a framework for discussing how students are identified for reading intervention and students' acquisition of reading skills through reading intervention. The National Reading Panel (2000) identified five elements of reading instruction:

1. Phonemic Awareness – the ability to notice and think about the individual sounds in spoken words,
2. Phonics – the relationship between written letters (graphemes) and spoken sounds (phonemes),
3. Fluency – the ability to read a text accurately and quickly,
4. Vocabulary – the words we must know to communicate effectively, and
5. Text Comprehension – the ability to understand the meaning of the text.

Phonemic Awareness

Part of broader phonological awareness which includes understanding larger components of spoken language such as syllables onsets and rhymes, phonemic awareness is a subset of skills that can be taught and learned (Ehri and Nunes, 2002). Phonemes signal differentiation in the meaning of a word to a listener based on categorizations that were established when the listener acquired a particular language (Ehri and Nunes, 2002). Phonemic awareness refers to the ability to focus on and manipulate phonemes, the smallest units that make up spoken language, in speech (Ehri and Nunes, 2002). Improved phonemic awareness improves children's ability to read words and comprehend text (Center for the Improvement of Early Reading Achievement, 2001). Phonemic awareness is important to reading due to the way people use the structure of the English writing system when they are learning to read and write words. For example, beginning readers must manipulate the prescribed alphabetic system to decode texts by blending phonemes and segment words into graphemes (Ehri and Nunes, 2002). Although phonological awareness is necessary, it is not a sufficient condition for children learning to read (Foorman, et al., 1997).

Phonics

Phonics instruction teaches the relationship between written letters and spoken sounds that help children decode text. The National Reading Panel (2000) recommended that phonics instruction be systematic and explicit in order to be effective. As part of a phonics program, children need to learn sequential decoding, the process of blending

individual sounds to create words, but not necessarily through synthetic phonics instruction that limits children to specific patterns and texts that can be decoded (Cunningham and Cunningham, 2002). Children need to develop phonemic awareness and have the opportunity to apply explicit phonics instruction within a multi-faceted setting that does not rely exclusively on isolated phonics instruction (Cunningham and Cunningham, 2002).

Fluency

Fluent readers can read orally with speed, accuracy, and proper expression (National Reading Panel, 2000). Fluency in reading most commonly means oral reading fluency in connected text, but also signifies reading text quickly, accurately, and with proper expression (Good, Simmons, Kame'enui, 2001). Reading researchers have also characterized fluency as a complex skill that requires the reader to achieve higher levels of performance in prerequisite foundational skills such as phonemic awareness, alphabetic understanding, and phonological recoding (Good, Simmons, Kame'enui, 2001; Wright and Cleary, 2006). Wolf and Katzir-Cohen (2001, p. 219) provided a definition of fluency as "the product of the initial development of accuracy and the subsequent definition of automaticity in underlying sublexical processes, lexical processes, and their integration in single-word reading and connected-text reading." Wolf and Katzir-Cohen's (2001) definition significantly concluded that a reader who reads fluently may allocate attention to the task of comprehension.

Fluent readers are not stalled by word identification problems that impede comprehension so the reader is able to perform the two tasks of word identification and comprehension effortlessly, simultaneously, and unconsciously (Samuels, 2002). Students who lack fluency in reading may focus more on the phonics decoding tasks of reading rather than on making connections and understanding the text more completely. Samuels (2002) indicated that readers use the processes of decoding, comprehension, and attention while reading, but that nonfluent readers have limited processing space or attention to facilitate the concurrent processes of decoding and comprehension. In this case, the nonfluent reader is forced to switch between the two processes, first decoding the words, then going back to comprehend the text, thereby making the process of reading burdensome and slow.

The fluent reader, in contrast, spends little processing energy or attention on the task of decoding because she has had extended experience with the roughly 300 words that make up 85% of the words encountered in daily reading (Samuels, 2002). For this reason, using word-per-minute fluency scores to predict reading comprehension in students has gained prominence in the field. The automaticity of decoding cedes to greater attention on the task of comprehension. In a study of third through fifth graders who were participating in a reading intervention program, fluency was the strongest contributor to reading comprehension outcomes (O'Connor, et al., 2002).

In recent years, researchers have hypothesized and often demonstrated the predictive link between strong reading fluency skills and outcomes on measures of reading achievement, especially measures of reading comprehension (Logan, 1997;

Good, Simmons, Kame'enui, 2001; Vaughn et al., 2000). Katzir et al (2006) described three current trends in the field of reading research tied to a multidimensional view of fluency in which fluency is a function of foundation skills as well as a component element of broad reading ability. Katzir et al (2006) claimed that fluency research is expanding so that investigations are not at the word level of reading but also include the processes of letter and connected-text reading. Recent fluency research has incorporated perceptual and linguistic measures in addition to investigating patterns among different groups of children with attention to factors such as home language, age, and ability.

Several instructional strategies have been posited as the most effective methods for increasing oral reading fluency in the primary and intermediate grades. In one of the methods, repeated reading, students practice reading a text until some predetermined level of fluency is attained (Chard, Vaughn, and Tyler, 2002; Therrien and Kubina, 2006). Repeated reading hinges on students increasing word recognition until automaticity occurs (Samuels, 1979). Repeated reading interventions have been associated with improvements in reading rate, accuracy, and comprehension (Chard, Vaughn, and Tyler, 2002). Dowhower (1987) found that a group of transitional second grade students improved in reading rate, accuracy, and comprehension through repeated readings. In another approach, listening-while-reading, students read a text while simultaneously listening to a fluent reading of the same text (Rasinksi, 1990). In the same study of second-grade students, Dowhower (1987) found that few differences resulted from the repeated readings method to the listening-while reading method with the exception that students had improved phrasing with the listening-while-reading

method. Rasinksi (1990) also found that both methods were effective instructional practices for increasing reading fluency in third grade students and that neither method was superior to the other, providing further evidence that general reading fluency contributes to reading comprehension ability.

Vocabulary

Similar to the dual processes evident in fluency, students who lack sufficient vocabulary skills may focus more on understanding individual words and have subsequently lower comprehension of the text as a whole. "Effective vocabulary instruction provides both definitional and contextual information about the meaning of new words" (Tam, Heward, and Heng, 2006). Graves and Watts-Taffe (2002) referred to word consciousness, the awareness of and interest in words and their meanings, as a key construct in helping children acquire a complex, rich vocabulary as children have a positive affective and cognitive disposition towards words in their discussion of the importance of vocabulary. Blachowicz and Fisher (2000) characterize vocabulary instruction as an instructional task that must be adapted for students with differing characteristics. In the reading classroom, vocabulary instruction either facilitates or relies on reading strategies while content area vocabulary instruction requires teaching vocabulary for retention and multiple meanings. The naturalistic acquisition of the approximate 2,000 words per year that some children gain does not account for the metalinguistic complexity necessary for the mastery of content area vocabulary that

eventually has great impact on students' comprehension of content area texts (Nagy and Scott, 2002).

Comprehension

Each of the four previous elements combines to impact text comprehension, the reason for reading (Center for the Improvement of Early Reading Achievement, 2001). As students progress through upper grades, difficulties in learning to read impede students' abilities to comprehend content-based texts (Vaughn and Edmonds, 2006; Anderson, 2006). Reading comprehension has its origins in the decoding of individual words, but the development of reading comprehension depends on word-level skills, background knowledge, and comprehension strategies (Pressley, 2000).

"Studies that have provided reading comprehension as a means of enhancing overall reading have resulted in gains in reading achievement" (Vaughn et al., 2000). As mentioned previously in the discussion of fluency, comprehension of text can be diminished when students spend inordinate time and attention to decode a high percentage of the words they encounter (Salinger, 2003). One way for teachers to enhance reading comprehension in students is to explicitly teach strategies for students to monitor their own comprehension (Vaughn et al., 2000). When students transition from primary grades to intermediate grades, their instructional goals often change from learning how to read to a setting in which students are expected to read to learn without continued instruction in the skills of reading (Lubliner, 2004). Upper elementary students

also need direct instruction in comprehension strategies so that they may become "active, purposeful users of text" (Salinger, 2003, p. 81).

Other Conceptions of Reading Content: Additions to the National Reading Panel

Richard Allington (2005a) has argued that the National Reading Panel's elements of reading instruction are not sufficient to describe effective reading instruction. He suggested that five addition "pillars" be added that include: a) classroom organization, b) matching pupils and texts, c) access to interesting texts, choice, and collaboration, d) writing and reading, and e) expert tutoring. Notably, Allington proposed elements of effective reading instruction that are inherently more difficult to objectively measure. Classroom organization includes a balance of grouping strategies for instruction such as whole-group, small-group, and side-by-side lessons.

By matching pupils to texts, students whose development lags behind their age peers would have access to texts that are at an appropriate level of complexity for individualized instruction. O'Connor, et al. (2002) found that students with very low fluency do not improve reading comprehension by reading grade-level texts, but do make improvement with support in texts that match the students' reading level.

Not only should texts be appropriately challenging, students should have opportunities to choose texts that are interesting and be able to collaborate with peers in reading activities based in those texts. Readers' affects, in addition to cognition and language, impact reading practices as well as reading achievement to the extent that students who have high intrinsic motivation combined with a learning goal orientation

and high self-efficacy are relatively active readers and high achievers (Guthrie and Wigfield, 2000). Students who have a stimulating task posed to increase situational interest have greater reading comprehension than students in comparable intervention situations with fewer stimulating tasks after controlling for initial comprehension (Guthrie, et al, 2006).

Allington (2005a) also noted the reciprocal relationship of writing and reading that can facilitate the development of fundamental skills of reading such as decoding. Many prominent researchers and practitioners have documented how reading is a prompt for writing as well as indicating the major purpose of writing as reading (Atwell, 1998; Calkins, 1995; Graves, et al., 2001).

The final pillar, expert tutoring, has produced "strikingly positive effects on reading achievement" (Allington, 2005a). This pillar will be directly discussed in later sections of this review.

Historically, remedial reading instruction has been demonstrated to limit and stall students' progress in reading because the focus is often on low-level skills rather than reading for meaning in connected text and the content of instruction is often different from that of the regular classroom reading program, leading to confusion for students (Walmsley & Allington, 1995). Wasik (1998) has also noted the potentially deleterious effects of the lack of coordination between intervention programs and classroom instruction.

Trained Personnel

The question of who is implementing reading intervention is extremely salient since quality instruction alone can reduce the incidence of reading difficulty (Mathes et al., 2003). Former President Clinton's America Reads Challenge is one example of an initiative that paired non-professional tutors and volunteers with struggling readers as an intervention strategy without success, in large part due to the lack of training for the personnel implementing the intervention (Worthy, et al., 2003). Teaching reading is a complex process that becomes even more challenging when working with struggling students (Vaughn and Edmonds, 2006). In a meta-analysis of reading intervention research, effective reading intervention was significantly associated with the qualifications of the teacher, with trained tutors and college students having the largest effect sizes (Elbaum, et al, 2000). Certified teachers and nonprofessional trained tutors have been predominantly identified in current literature as effective in providing reading intervention. Essentially, the training provided to the personnel who implement the training differentiates the extent of effectiveness in teaching reading to struggling students. In sum, programs that employ certified teachers as tutors appear to have larger effect sizes than those that employ uncertified paraprofessional tutors (Wasik and Slavin, 1993).

Certified teachers have been shown to increase student performance in comparison to non-certified peers. Some research has identified the quality of the teacher in the classroom as the most important school-based factor in predicting student outcomes (Wright, et al., 1997; Goldhaber & Anthony, 2005). Merely having a certified

teacher can mean up to two months for a student on a grade-equivalent scale (Laczko-Kerr and Berliner, 2003). A quality teacher can make a difference of as much as a full year's learning growth (Hanushek, 1992). Students taught by certified teachers at the elementary level demonstrate greater gains in achievement than those taught by non-certified teachers (Darling-Hammond & Sykes, 1999). Duffy, et al. (1987) demonstrated that expert teachers make instructional decisions responsively to student needs, independent of commercial materials, therefore creating a more individualized learning situation for students with reading difficulties.

Walmsley and Allington (1995) note that evidence from analyses of large-scale studies has emerged that some children do benefit from remedial and special education programs, but since these students are not in the majority they suggest alterations to typical program design including high-quality instruction provided by a trained teacher. A trained teacher can respond flexibly to the needs and characteristics of the learners to modify and adapt curriculum so that students are successful (Allington, 2005b). The rote instructional program often used with volunteers cannot produce the same effect sizes as those that are used by trained teachers that rely more heavily on teacher judgment and responsiveness to the learner. In contrast, when volunteers receive training and close supervision from a certified teacher knowledgeable about the processes of reading, students have made significant gains (Invernizzi, et al., 1997; Wasik, 1998). Vadasy, et al. (2000) found that students at-risk for reading disabilities who were tutored for 30 minutes, four days a week, for a school year by uncertified tutors who received training far outscored control students who did not participate in tutoring. Six-year old children

showed significant improvement in early decoding ability, letter-sound knowledge and phonological skills after participating in an intervention guided by a trained teacher assistant who worked with students in small groups for short periods of time using a highly structured and scripted program (Savage and Carless, 2005).

Program Design

Remediation and intervention programs occur in various combinations of time and place with wide variances in who is conducting intervention. Intervention programs can occur before, after, or during school hours, for varying lengths of time, and include variable group sizes. In this section, I review literature relevant to the discussion of time and duration. I will address group size in the following section.

The first question is basically one of quantity, or how much reading instruction or access to reading instruction is effective in preventing reading difficulties. When students are pulled out of their regular classrooms to go to a different room for reading instruction, they lose time that could be spent in instruction (Walmsley & Allington, 1995). In contrast, extended-day programs allow at-risk students more time for learning opportunities by adding to the time of instruction rather than replacing classroom instruction with a pull-out program. Citing increased student expectations without commensurate increases in time to master higher learning standards, Dodd and Wise (2002) suggested that some students may need three to six times the amount of time that average students need to master the same material. Studies have demonstrated a high

probability of persistent reading difficulty through fourth grade (Juel, 1988), however reading difficulty is not necessarily a persistent condition when quality reading instruction is provided among other factors (Spira, Bracken, and Fischel, 2005).

In their examination of school-based, after-school programs, Grossman, et al. (2002) found positive social associations for students participating in the programs. Since the programs only occurred once or twice per week, the investigators did not expect nor study academic associations such as changes in grades for participating students. The second question regards duration of the program. In a study involving volunteer tutors, students who had more than forty intervention sessions significantly outperformed students with fewer than forty sessions on outcome measures of text reading and word recognition (Invernizzi, et al., 1997).

Models of Intervention: Size Matters

Reading intervention models range in the provision of services from the individualized programs to whole-school reform programs that include components aimed at general improvement of reading instruction. Whole-school reform models, such as Success for All (Slavin, Madden, Dolan, et. al., 1994), have included reading intervention as a key component of the program, while Reading Recovery (Clay, 1994) and Soar to Success (Wasik and Slavin, 1993) are two leading examples of models that focus specifically on struggling readers. Effective reading intervention programs typically use small groups or 1:1 student to teacher ratio for delivery of instruction (Snow, et. al., 1998; Pinnell, 1994; Wasik and Slavin, 1993). For example, in a three-

year study of a campus-based literacy instruction reform effort, accelerated growth in students' academic outcomes such as reading fluency were linked to one-on-one or small-group instructional arrangements (Greenwood, et al., 2003). In this section, I will review the various models of reading intervention that range from one-on-one sessions to whole-class programmed instruction in addition to some specific, well-known programs as exemplars.

Individual Intervention Models

Vellutino, et al. (1996) obtained substantial growth in first grade students in reading over one school year employing a model that included intensive, daily one-on-one tutoring in phonemic awareness, the alphabetic principle, sight-word vocabulary, and reading comprehension strategies. In addition to consistency of reading content, coordinated service delivery is essential to effective intervention, specifically in the form collaborative planning between the classroom teacher and the special education or service provision teacher (Johnston, et al. 1985). Foorman, et al. (1997) studied a successful intervention of students with reading disabilities that also included one-on-one instruction, but extended the period of intervention to 60 minutes per day for an entire school year.

One program that relies on one-to-one intervention for thirty minutes daily, Reading Recovery, has demonstrated more robust success for students in first grade (Dyer & Binkney, 1995). Large start-up and continuation costs and questions concerning the long-term efficacy of Reading Recovery have prohibited more expansive and current

use in public schools as well as encouraged research differentiation of one-on-one instruction and very small group instruction.

Small-group Intervention

Current reading research advocates for early intervention in small-group format that focuses instruction on reading skills with a certified teacher for at-risk students (Rohland, 2002; McCormack and Paratore, 2003). Small-group reading instruction benefits students (Bowersox, 1995) and schools have documented increases in student achievement after the effective implementation of small-group instructional practices (Bowersox, 1995; Elbaum, et al., 2000; Riggins, 2001). Small-group reading intervention has been demonstrated to be more effective than whole-class, undifferentiated instruction (Elbaum, et al., 2000), especially for low-performing students (Schumm, Moody, and Vaughn, 2000). Group size differentials have created significantly higher reading scores in groups with less than a 1:10 teacher-student ratio (Vaughn et al., 2003). Small-group intervention can be achieved through pull-out programs where students leave the classroom or through models in which students remain in the classroom with the teacher.

In one model of reading intervention, students are pulled out of the regular classroom by a teacher or tutor for periods of time to work independently or with a small group of children. Students involved in Chapter One programs were pulled out in groups of five children from three to five days a week and were found to make large gains on

standardized achievement tests, but did not make sufficient progress to match the achievement levels of advantaged students (Birman, et al., 1987). Intervention programs that remove students from the mainstream classroom and from their classroom teacher have been criticized because the effect is that students often receive lower-quality instruction that is incongruous from their classroom instruction rather than supplemental instruction that would enhance their learning (Walmsley and Allington, 1995).

Small-group reading intervention, or supplemental reading instruction, that occurs in the classroom with the classroom teacher has a distinct advantage over programs that rely on other personnel or time away from the classroom setting for intervention. Intervention that has a high degree of coordination with regular classroom instruction edges out other models of intervention in terms of gains on student achievement measures (McIntyre et al., 2005).

In their study of supplemental reading instruction, Linan-Thompson and Hickman-Davis (2002) found that there was not a statistical difference in the gains made by students in 1:1 groups than by students in 1:3 groups. These results should be interpreted cautiously as the authors also noted that a greater percentage of students who participated in group sizes that were larger than 1:1 failed to make enough progress to catch up to their peers (Linan-Thompson and Hickman-Davis, 2002). In another study of group size that held intervention type and intensity constant, 1:1 and 1:3 ratios scored similarly on outcome measures while the 1:10 group lagged in phoneme segmentation, fluency and comprehension (Vaughn, et al., 2003). McIntyre et al., (2005) theorized that supplemental instruction with the classroom teacher yielded higher comprehension scores

in their study due to students' increased time and attention with the classroom teacher in a small-group rather than whole-class setting.

Success for All is a comprehensive school restructuring program that has small-group reading instruction as one of four reading instruction components (Duffy-Hester, 1999). With Success for All, first through third grade students receive twenty minutes of tutoring each day that is in addition to and integrated with regular classroom instruction (Duffy-Hester, 1999; McIntyre et al., 2005). A randomized field trial of the implementation of Success For All that included thirty-eight schools demonstrated statistically significant positive school-level achievement effects (Borman et al., 2005). Even though it has been successful, like Reading Recovery, Success for All has been criticized for its costliness since it is purchased as a comprehensive package that includes materials and training.

Whole-class, Undifferentiated Intervention

Whole-class, undifferentiated instruction means that all students in the class proceed with the same activity. In reading instruction, this typically means that all children are reading the same book at the same time and much of the activity is teacher-directed (Taylor et al., 1995). Intervention in the context of whole-class instruction seems incongruous, but intervention programs exist that are intended to serve an entire classroom of students simultaneously.

The Open Court language arts program is a highly-structured course for kindergarten through third grade classes in which the teacher follows a heavily-scripted manual for providing instructional activities in reading and language arts (Ajayi, 2005).

Open Court includes systematic phonics instruction as a key component (Wilson et al., 2004). Open Court has been criticized for its failure to recognize the varied needs of students and the professional skills and knowledge that enable teachers to respond to the diverse needs of learners (Ajayi, 2005).

PART I SUMMARY

This review of contemporary reading research yielded four indices for determining the effectiveness of reading intervention programs. Effective reading intervention programs should: a) have consistent content of reading instruction, b) use trained personnel for tutoring, c) include a program design that addresses the length of instructional sessions and duration of the intervention, and d) and retain small group sizes. Reading instruction should be coordinated and explicitly focused with ample opportunity for struggling students to practice skills contextually using instructional level texts that are interesting and motivating within a setting that allows for peer collaboration. Untrained volunteers and tutors have been found to be far less effective than both trained volunteers and certified teachers who have both been demonstrated as effective in providing reading intervention, although certified teachers more consistently provide responsive instruction based on the needs of the learner that facilitates more individualized intervention. Reading intervention programs that provide a minimum of thirty minutes per session over extended periods of the school year have yielded greater effect sizes than intermittent or less consistent programs. Small differentials result when comparing group sizes of 1:1 up to 1:3 while larger differences emerge when comparing

one-on-one and very small group sizes to groups with a 1:10 teacher ratio suggesting that very small groups can be as effective as one-on-one tutoring. Early reading interventions that are "systematic, explicit, and intense" have been repeatedly shown to be effective in improving reading outcomes in students who are initially identified as at-risk for reading failure (Vaughn, et al., 2005).

PART II – STUDENTS AND TEACHERS

At-Risk Students and Struggling Readers

Concern for the achievement gap gained prominence with the shift in thinking from the provision of equitable education to the standardization of the equitable provision of educational opportunity to all children. Despite efforts at standardization, the achievement gap persists. Recent National Association of Educational Progress (NAEP) scores for fourth and eighth grade students demonstrated that African-American students and Hispanic students still lag behind white students, although the gap in scores has very modestly narrowed in reading by 3 points, at most, on a 500-point scale (Olson and Manzo, 2005). NAEP scores provided mixed evidence for making causal inferences about the impact of NCLB on increasing achievement in reading for all students since reading scores have remained approximately steady since NAEP data became available in 1992 (Olson and Manzo, 2005; Good, Simmons, and Kame'enui, 2001).

Extant research posits a variety of causes for reading difficulty in children from genetic determinants (Chapman et al., 2003; McCandliss and Noble, 2003) to inadequate instruction or the number of books that have been read (Cunningham and Stanovich, 1990; Vellutino, et al., 2004). A combination of causative factors has also been demonstrated. Scanlon and Vellutino (1997) found that cognitive variables more frequently distinguished poor readers from good or average readers, but that instructional variables more often distinguished good readers from average or poor readers. Factors including phonemic awareness, language comprehension, lexical/semantic skills, verbal working memory, rapid automatic naming, and oral word fluency have been documented as contributing to the process of reading acquisition as well as the development of reading difficulty in children (Fiorello, Hale, and Snyder, 2006).

"At-risk" is the current term used to describe students who are low-achieving in any area of academic proficiency. For the purpose of this study, at-risk students will indicate students who are struggling in the area of reading. Children may be identified as at-risk for reading difficulty for a variety of purposes. Some scholars place the crux of identification on reading criterion such as phonological processing (Savage and Carless, 2005, Ehri et al., 2001), word-per-minute fluency rates (Chard, Vaughn, and Tyler, 2002; Wright and Cleary, 2006), or comprehension skills (Pearson and Camperell, 1994).

Others implicate macro-level politics and structures as identifying criterion for children who will likely struggle in reading and school, in general (Darling-Hammond, 2004). Au (2000) identified three cultural variables – ethnicity, social class, and primary language – as consistently related to schools' difficulties in achieving high levels of literacy in all students whom they serve. For example, in the kindergarten to first grade cohort of the Early Childhood Longitudinal Study (Chatterji, 2006), African American children, boys, and children from high-poverty households had significantly lower

reading performance in first grade than white students when child-level background differences were controlled.

Children who experience difficulty in learning to read in the early grades are likely to continue to experience difficulty throughout their school careers and beyond (Scanlon and Vellutino, 1997). Even though considerable research has shown that reading difficulties in young children are amenable to early and intensive instructional intervention (Scanlon and Vellutino, 1997; Clay, 1985; Slavin et al., 1990), students who leave third grade as poor readers may never catch up to their peers without intensive, long-term intervention (Torgesen and Burgess, 1998). "Low initial skills and low learning trajectories make catching up all but impossible for many readers at risk for reading difficulties" (Good, Simmons, and Kame'enui, 2001, p. 260). Struggling readers may have limited development of the processes of reading, may have fewer reading strategies to help them process information, may lack understanding of the purposes of reading, or may have reduced self-efficacy about their reading skills (Lowe, Lowe, Wood, Algozzine, 1992).

Wright and Cleary (2006) described a four-stage instructional hierarchy to conceptualize the instructional support that struggling readers need. In the first stage, the acquisition stage, the learner performs a skill accurately. After committing that knowledge to memory, the learner advances to the fluency stage in which she performs and applies the skill with greater speed. The learner advances to the generalization phase in which she applies the skill to novel situations, and then, eventually applies the knowledge or skill to new uses in the adaptation phase.

The National Reading Panel (2000, p. 4-2) "did not focus on special populations such as children whose first language is other than English and children with learning disabilities." Far less research has considered students who learn English as a second

language and what it means for these students to struggle with reading (Linan-Thompson and Hickman-Davis, 2002; Figueroa, Fradd, and Correa, 1989). Some consensus has been made that instructional strategies that are effective with monolingual students can also be demonstrated as effective with ESL students, although the practices may require some modification (Fitzgerald, 1995; Vaughn et al., 2005). The synthesis of this research begs the question of how the systems fit struggling readers as it is well-documented that these students have not fit into the systems (Allington and Walmsley, 1995).

English-Language Learners

English-language learners comprise one group of struggling readers who have not been studied at length, although the area is nascent. "There is a small but growing research base that supports the use of supplemental reading instruction based on research with monolingual English speakers to improve reading outcomes of EL learners" (Linan-Thompson, 2002, p. 242). Linan-Thompson and Hickman-Davis (2002) found that when English-language learners were provided with thirty minutes of daily small-group instruction in which they had the opportunity to acquire new skills sequentially in isolation and then practice the skills in context, the students typically made growth. They noted, however, that English-language learners who were more proficient in English made less growth than their less proficient peers and neither group made gains at the rate needed for them to catch up to non-intervention students or benefit from classroom instruction without additional support.

High-Stakes Testing

Several researchers and educators have made significant claims that standardized curriculum and assessment are the solutions to inequitable opportunity (Sklra & Scheurich, 2004; Slavin, 2003). The opposition claims that curriculum and assessment standardization perpetuates inequitable practices through the promulgation of standards and accountability systems that disenfranchise and exclude various groups of students (McNeil, 2000; Valenzuela, 2005; Sobol, 1997; Linn, 2003; Berliner & Biddle, 1995; McReynolds, 2006). The inequitable tracking and stratification of students is achieved through standardized assessment known as high-stakes testing (Darling-Hammond, 2004). High-stakes testing is the use of a single test to affects an individual student's life chances or educational opportunity, potentially impacting grade retention, graduation, or special service placement (Darling-Hammond, 2004). In the current iteration of national and state accountability in public elementary schools, high-stakes testing typically begins in third grade (Good, Simmons, and Kame'enui, 2001).

Teacher Knowledge

The teaching of reading, as with any content area, is enacted through teachers in the classroom where knowledge, experience, and context impact the delivery of instruction. The teacher's knowledge is a key factor that impacts decision-making on multiple levels. There are two major themes that relate to teacher knowledge and its impact on reading intervention: how teacher knowledge is developed and how teachers use knowledge in conjunction with their beliefs within the contexts of classrooms.

Teacher Learning and Professional Development

Once a teacher attains certification and credentials, the teacher typically continues education through professional development that restricts the power of teachers by defining knowledge. When professional development is part of school reform, the school reform program is typically mandated from an outside agency beyond the participating teachers' power to influence the content. Or, the school reform program may consist of an explicit curriculum that excludes teachers' professional judgment. In other modes of professional development, some teachers must meet requirements to fulfill a certain number of professional development hours for full certification or to retain their certification. Teachers do not necessarily have complete autonomy to select professional development programs, as seen in the case of school-wide reform packages or district-mandated programs. A modern form of associational prohibition exists in the controlled market of authorized professional development. There is an inherent control in the curriculum of professional development when the district or government is the sole provider for teachers. Though there is no prohibition of meeting collectively, restraints on the content persist. Teacher unions constitute a unique exception to this prohibition, though teacher unions tend to be more politically affiliated than academically developmental.

Cognition researchers commonly agree on some theories about how people learn relevant to professional development and the construction of knowledge. Each of the following principles supports the general thesis put forth by Freire regarding the manner in which an oppressor can regulate the thoughts and knowledge of the oppressed (Freire, 1972). Calling teachers "oppressed" and professional development providers "oppressors" appears incongruous, but the principle of guiding knowledge formation is transferable. The knowledge base principle, the strategic processing principle, and the

context principle describe ways in which teacher knowledge can be guided through professional development. In the knowledge base principle, the teacher's existing knowledge serves as a foundation for all future learning by filtering and coloring all new information (Hawley and Valli, 1999). This may result in systemic perpetuation when new knowledge is rejected based on a non-empirical basis. The strategic processing principle theorizes that the ability to reflect on and regulate one's thoughts and behaviors is essential to learning and development (Hawley and Valli, 1999). In the context principle, learning is a socially shared activity as much as it is an individual attainment because knowledge formation is mediated by context. Each of these principles impacts the potential for teachers to develop knowledge about the way reading should be taught and to make decisions about the methods for teaching reading.

The ways that teachers learn throughout the career continuum can be translated into three metaphors for teacher learning (Sykes, 1999). In the first approach, teachers act as consumers within a quasi-regulated market structured by bureaucratic service provision. Though this approach implies individual discretion, the fulfillment of district or state requirements may be linked to selections of "approved" professional development opportunities. In another approach, teachers independently build knowledge, skills, and materials to enhance their craft. In the third approach, teachers operate as professionals who orient their work toward communal and collegial norms. For curriculum development as professional development to flourish, groups that authorize professional development must recognize the knowledge and professionalism of the teacher as seen in the third approach.

Most teachers will be required to continue their education by pursuing an additional degree from a university or by participating in professional development provided by the school, district, or region. Incentives such as advancement in salary

scales and licensure renewal may be contingent upon the completion of some form of professional development. The potential for a variety of experiences exists if teachers are encouraged to acquire professional growth and development in pursuit of flexible career pathways as administrators, supervisors, and curriculum specialists (MacDonald, 1999). The necessity of challenge and opportunity for ongoing learning and development is a major concern for career teachers. Professional freedom and increased autonomy for teachers are receiving more attention as significant factors for keeping teachers in the profession (MacDonald, 1999).

The way the teaching profession exists marks a point on a democratic continuum. Though some would argue that the most liberal and least restrictive choices would mark a more democratic position, it is how teachers participate in choices surrounding curriculum issues, collective activities, and certification procedures that create democratic practice. For example, a standardized national curriculum is much more restrictive than a locally contextualized curriculum in which the teacher retains control. Groups not comprised of professional educators also influence the curriculum, such as business leaders and legislators. The extent of their power and influence over curricular decisions limits the efficacy of teachers and their professional autonomy. For democracy to occur in the school setting, the curriculum must be directed by those most closely associated with the community who can simultaneously consider pedagogy and other elements of professional knowledge. How teachers eventually enact their knowledge and practice is affected by their social context in addition to policies directed by the local education agency and the state.

McLaughlin (1997, p. 172) argued against professional development dictated by outside agencies when she wrote, "Just as one-shot training activities can neither anticipate the information needs of implementers over time nor be comprehensible to

trainees in the absence of direct experience with particular problems, neither can highly structured planning activities that attempt extensive prior specification of operational procedures and objectives effectively address all contingencies in advance or foresee intervening local conditions." Additionally, McLaughlin (1997) characterized effectively implemented projects as having three critical components: 1) local materials development, 2) concrete, on-going training, and 3) adaptive planning and regular, frequent staff meetings.

Schools are places of inquiry. Teachers direct inquiry, albeit in controlled manners. Teacher-inquirers shape the spirit of the school and the learning in the classroom. Empowering teachers to deliberate curriculum as a professional development activity begins with the recognition that teachers hold the greatest power in determining what happens in classrooms (Connelly and Ben-Peretz, 1997). In turn, developing curriculum far exceeds the simple practice of writing objectives for a lesson, or even the relatively mundane modification of the scope and sequence given by the district. Curriculum development should be characterized as a collaborative action that incorporates the knowledge and expertise of a group of teachers in their application and consideration of specific students and school culture. It assumes that "the teacher is a dedicated, responsible, and morally-committed professional"(McCutcheon, 1997, p. 195) For example, in a study of math and science teachers engaged in professional development, math teachers were more likely to engage in long-term curriculum development when their students were low-achieving and unresponsive to traditional curriculum (Huffman, Thomas, and Lawrenz, 2003).

Rarely are teachers given complete autonomy in creating the curriculum through deliberation. In a Scottish case study, curriculum development was affirmed as being an important part of professional development, but the way that teachers were marginalized

in Scottish reform efforts diminished the efficacy of curriculum development (Kirkwood, 2001). In Texas, the Texas Essential Knowledge and Skills acts in a similar way to narrow the range of what educators may select to include. High-stakes testing and accountability through NCLB has meant that schools spend more time on reading and math with the effect that the curriculum is narrowed to those domains that are tested most frequently (Jennings and Rentner, 2006). Even with a strong focus on reading, teachers still do not hold exclusive autonomy to make curricular and instructional decisions about the teaching of reading.

Barriers to Professional Development in Reading Instruction

The teaching of reading has been deeply contested terrain in both preservice teacher education programs and professional development programs that has resulted in some resistance to change from the teaching force. Lortie's (2002) assertion that the idealized, mythologized vision of teaching gained through the apprenticeship of observation assists in developing the power of the institution and recreating the status quo in the teaching force has relevance in the contemporary landscape of professional development for reading teaching. Greenwood, et. al. (2003), documented the difficulty in changing teacher practices in literacy instruction in local schools. Didactic classroom training has been demonstrated as unlikely to significantly alter classroom teachers' practice, although practice does improve when consultant monitoring with feedback to teachers occurs (Boudah et al., 2001; Vaughn et al., 1998).

Changes in literacy instruction are often limited teachers' knowledge about how to combine multiple effective practices into a comprehensive, cohesive instructional program (Greenwood, et al., 2003). "Development of the theoretical and conceptual knowledge necessary to make effective instructional choices" were essential components

for the implementation of a successful campus-based reading intervention in a case study by Walpole, Justice, and Invernizzi (2004, p. 277). The content of staff development was explicitly tied to the instructional actions expected in the classrooms. For example, the teachers "learned about fluency at a conceptual level and also about instructional strategies to support it" (Walpole, Justice, and Invernizzi, 2004, p. 277).

Part of the difficulty for teachers in creating a strong knowledge base about reading instruction from which to draw arises from conflicting recommendations within the field of reading research. Reutzel and Smith (2004) identified ten principles of ineffective instruction gleaned from review of contemporary research articles on reading as well as recommendations of the National Reading Panel (2000). They included isolated instruction, skill drill and mastery, control, competition, implicit instruction and modeling avoidance, error avoidance, negative and lowered expectations, grouping practices, rote accountability, and oral reading as a mode of reading practice. Several of these principles that Reutzel and Smith (2004) claim make learning to read more difficult have been substantially documented as effective strategies in published research or that are essential components of reading programs provided in schools. For example, competition or contests as found in reading programs like Accelerated Reader in which students earn point for reading and answering comprehension questions about a leveled book are diametrically in opposition to motivation-based research that demonstrates students' persistence in learning to read is linked to their self-efficacy and perceptions about their ability (Wigfield and Guthrie, 1997). Another review of reading research concluded that "a basic reading instruction program for poor readers and those with LD should employ an intensive and structured reading approach based on both direct instruction and mastery learning" (Tam, Heward, and Heng, 2006, p. 81).

Teacher Certification: How Much Help?

Although NCLB articulates quality teaching in terms of degrees and certification, implementing instructional reform requires quality teaching from teachers who have strong pedagogical skills and accurate knowledge (Foorman and Nixon, 2006). Although Chatterji (2006) demonstrated that merely having elementary teacher certification was a significant reading correlate in first grade at the school level in a study of reading performance that tracked students from kindergarten to first grade, Foorman and Moats (2004) have cited the slowness of teacher preparation programs and lack of professional development programs to promote research-based practices in reading as obstacles to the successful, broad implementation of reading intervention. Some evidence has been offered that preservice or inservice teacher education programs do not sufficiently prepare teachers to develop classroom environments that support struggling readers (Duffy-Hester, 1999). Scarborough et al. (1998) found that preservice teachers lack understanding about the phonemic structure of English words and have difficulty imparting phonemic knowledge about the English language to beginning readers. When teachers do not have access to appropriate and effective staff development opportunities about the theory or practice of teaching the skills and processes of reading, they may not have the skills required to adequately teach certain literacy precursory skills (Walpole, Justice, and Invernizzi, 2004). Moats and Foorman (2003) established a modest predictive relationship between teachers' knowledge, classroom reading achievement, and teachers' observed teaching competence by surveying and observing teachers within the context of a longitudinal, four-year study of reading instruction in low-performing, high-poverty urban schools in which teachers had gaps in phonological knowledge and language concepts. In order for students to flexibly integrate strategies while they are

reading, teachers must flexibly adapt their professional knowledge to meet the developing conceptual needs of the students (Duffy, 1993).

"There is clear evidence that teachers are not well trained in the knowledge base and instructional skills that are essential in adapting reading instruction to children who do not learn easily" (Torgesen, Wagner, and Rashotte, 1997, p. 1). There is some acknowledgement of how little is actually known about how to teach teachers to use reading strategies in the classroom setting (National Reading Panel, 2000; Snow, 2002) specifically about how to help teachers to overcome concerns about the feasibility and fit of implementing a new practice into existing demands of the classroom (Klingner et al, 2004). In a study that included third grade general education teachers who had at least one student with a diagnosed learning disability in the class, teachers reported that they most often use whole-class and mixed-ability grouping strategies for reading instruction with high reliance on whole-class instructional grouping due to management reasons (Moody and Vaughn, 1997). Administrative control, classroom management, and a lack of professional development on instructional grouping strategies were key factors that influenced teachers' instructional grouping arrangements (Moody and Vaughn, 1997). Management and instructional issues abound for small-group reading instruction as the teacher may spend up to two-thirds of the allocated instructional reading time working with one small group after another, leaving students to work independently for extended periods of time (Mathes et al., 2003). In summary, teachers felt that they had been told or had enough knowledge to group students, but that they would like professional development on instruction within the grouping arrangement (Moody and Vaughn, 1997; Schumm et al., 2000).

Knowledge is transferred through the lenses of belief held by the teacher and the learner. When professional development is available and provided for teachers about

how to teach reading, teachers receive that knowledge and internalize it through the lens of their beliefs about pedagogy, content, and children. In the following section, I will review literature about teachers' beliefs and how they can impact curriculum and instruction in the reading classroom.

The Role of Teachers' Beliefs in the Teaching of Reading

The teacher's beliefs about how people learn and the role of the teacher in learning become evident through the teacher's choices about the methods for conveying the goals and objectives of the curriculum. Teachers make decisions in their classrooms based on pedagogical beliefs frequently derived from experiences that occur before teachers begin undergraduate coursework (Vartuli, 1999). Their decisions in the context of their classrooms are often rooted in personal practical knowledge in contrast to technical knowledge of child development and learning theory (Spodek, 1988).

Research about teacher beliefs is inherently difficult since beliefs cannot be directly inferred from observable behaviors (Kagan, 1992), however, a high degree of congruence between teacher beliefs and teacher behavior has been demonstrated (Vartuli, 1999). A teacher's beliefs typically reflect the nature of the instruction that the teacher provides to the students within limitations of knowledge of content area or availability of instructional materials (Kagan, 1992). A study of British literacy teachers indicated that successful literacy teachers consistently identified teaching practices that were aligned with the teachers' theoretical orientations (Poulson et al., 2001). Teacher belief, in this review, is defined as "pre- or inservice teachers' implicit assumptions about students, learning, classrooms, and the subject matter to be taught" (Kagan, 1992, p. 66).

By selecting particular methods over other available options, the teacher reveals her or his beliefs about the nature of human learning. How those beliefs are enacted

impact student learning. Although the concepts of human learning has been historicized into stages that imply the passage of one popularly held concept followed by another, the legacies of these categorizations about human thought persist in modern classrooms via the explicit teachings of teacher education institutions and through the habits of being gained through the apprenticeship of observation (Lortie, 2002). I will review some of the prevailing conceptions of instruction and learning in the following section.

Bruner's cognitive-development perspective emphasized the development of problem-solving skills based in methods of inquiry. Bruner advocated learning by discovery and proposed that the curriculum should be organized in a manner that mimics children's acquisition of concepts to facilitate the discovery process (Gredler, 2005). Bruner also held culture as central to an individual's development as children conceptualize themselves, others and their world through culture. The centrality of culture in learning would gain prominence again through the work of Lev Vygotsky (Gredler, 2005).

Block states that, "mastery learning is an effective set of individualized, instructional learning practices that consistently help most students to learn excellently" (Block, 1980, p. 66). The mastery learning approach, as described by Block (1980), may address the needs of a numerical majority of students in demonstrating specific objectives. "This strategy attempts to minimize the time a group needs to learn excellently so that it is within the fixed amount of calendar time available for instruction" (Block, 1980, p. 67). Mastery learning methods place time and efficiency at the foreground of the learning process, rather than individual students. Teachers who consistently employ mastery learning strategies give prominence to the curriculum scope and sequence as the essential component of schooling thereby achieving standardization more readily. "Obviously, if the teacher has no clear idea of where his/her instruction is

headed, then s/he is more likely to be seduced by fruitless pedagogical detours" (Block, 1980, p. 70). Mastery learning reflects belief sets in which the students are receptacles for objective knowledge, and the curriculum is the key determinant of learning in the classroom. In this method, the role of the teacher is to provide information to the students as expert.

Courts poses an alternative to mastery learning in his discussion of whole language by reminding us that, "classroom practices grow out of a whole language approach to teaching; the whole language approach to teaching is supported by cognitive learning theory (Courts, 1997, p. 102). "In sum, the whole language approach sees learners as integrated, whole human beings who, through their innate generative abilities and desire to make meaning in and of the work are in the process of using language to create a conscious self and negotiate a relationship with all that is outside them" (Courts, 1997, p. 121). Whole language approaches reveal a different belief in which the student contextually learns curricular objectives through experiences and interactions and the curriculum changes within the context of the classroom. The role of the teacher is to facilitate learning through instruction that inherently creates a more subjective classroom environment.

Neither mastery learning nor whole language, nor the beliefs that ground these methodologies are divorced from the children being taught in classrooms. Language is a crucial element in discussing the ways power shape what happens within the classroom. "By leaving our colonial legacy unexamined, the choice to choose an effective methodology where students are denied the choice to study their language and culture is, for all practical purposes, a choiceless choice" (Macedo, 2000, p. 17). Delpit (1988, p. 296), in her discussion of whether whole language teaching is explicit enough for various students, argues that, "students must be taught the codes needed to participate fully in the

mainstream of American life." Delpit proposes explicit teaching of the codes of power in contrast to Macedo's perspective that areas of study should include the students' culture and language. However, Delpit and Macedo should not be viewed as wholly contradictory as each supports the value of the culture and knowledge that students bring into the classroom. In bilingual education, sometimes English is taught as a replacement language for the language a student originally speaks. Macedo (2000, p. 15) compares bilingual education to "a form of racism at the level of language." Whichever methodology a teacher most frequently employs, the instructional choices in the classroom are most often left to the judgment of the teacher, therefore changing teacher perceptions about at-risk students and elevating teacher expectations for students who are learning English as a second language are critical initial steps to improving classroom practice (Haager and Windmueller, 2001).

"We do not really see through our eyes or hear through our ears, but through our beliefs" (Delpit, 1988, p. 297). We teach through our beliefs, as well. As Ladson-Billings (1995, p. 162) noted in her study of effective teachers of African-American students, how teachers think about themselves as teachers in regard to the philosophical and ideological underpinnings of their practice effects their teaching in the classroom. In their study of general and special education teachers, Moody and Vaughn (1998) found that teachers consistently identified control over decision-making as an important issue although their perspectives differed according to their position so that general education teachers more often felt pressure to conform to district- and school-level administrative decisions while special education teachers believed they had more autonomy to make instructional grouping decisions. "It is not simply the expensive, command-style central office that is killing city schools. Teaching itself is a victim of bureaucratization. It is the acceptance of the model, the reduction of teaching, for example, to a set of

regulations to be spelled out as a result of negotiated conflict, and the recreation of bureaucracy (with its focus on procedure and function and interchangeable parts) into the classroom itself, that distorts teachers and destroys teachers and students alike" (Ayers, 1992, p. 260).

Teachers' Curricular and Instructional Decision-Making

Teachers can control some aspects of curriculum and policy through their choices within the context of the classroom. In describing the teachers in her study of successful teachers of African-American students, Ladson-Billings (1995, p. 162) was initially dismayed at the lack of apparent similar "philosophical and ideological underpinnings of their practice". She later realized that the teachers in her study each "identified strongly with teaching" (Ladson-Billings, 1995, p. 163) to the extent that they felt positively about being teachers and had sufficient efficacy to control many, if not most, aspects of their teaching. The teachers in Ladson-Billings' study possessed keen awareness of their power to impact their students positively, sometimes in opposition to the desires of the officials of the institution.

The teacher's expectations and biases about children through lenses of developmental appropriateness in addition to their individual conceptions about race, class, and gender can further impact the development of relationships between teachers and students. "The images that teachers and others hold about children and their potential have a major influence on the use by teachers of their full range of processional skills" (Hilliard, 1992, p. 372). "Thus, we see that it is not the learning style of the child that prevents the child from learning; it is the perception by the teacher of the child's style as a sign of incapacity that causes the teacher to reduce the quality of instruction offered" (Hilliard, 1992, p. 373).

The teachers in Ladson-Billings (1994) study rejected the strictures prescribed by the institution in order to more actively engage their students in pursuit of meaningful learning. "Both Devereaux and Hilliard comment that they have 'conveniently ignored' those rules and guidelines that interfere with their ability to know their students better" (Ladson-Billings, 1994, p. 66). Ladson-Billings coded this behavior as successful teaching and provided an example of teachers reconstituting the official curriculum in response to their students' needs. In order to explicitly re-form the curriculum, the teacher must first conceive of the teaching role differently than as a conduit of the curriculum as an immutable product of the institution. The teachers in Ladson-Billings' study and teachers who intentionally alter the curriculum for instructional purposes, necessarily view the relationship of teacher, student, and curriculum differently.

Another reality exists alongside this description of teaching in which the students' needs are paramount to instructional and curricular decision-making. Classroom management, time management, beliefs about developmental appropriateness, lack of theoretical knowledge about instructional options and how to implement strategies interfere with an idealized vision in which the teacher is accessing a wealth of resources and knowledge for the sole purpose of student learning.

When the official curriculum is adapted, the curricular objectives may be expanded to stretch the official curriculum so that it becomes more accessible and meaningful to students. Ladson-Billings (1994) describes a math lesson in which the teacher uses Egypt to gain the interest of her students and make the lesson meaningful to them. Again, through her coding of this adaptation as "good teaching," we are provided with an exemplar that challenges the blind reproduction of sameness in teaching. Also based subjectively in what the teacher believes should be taught, "culturally relevant teaching requires that students maintain some cultural integrity as well as academic

excellence" (Ladson-Billings, 1995, p. 160). This kind of teaching is teaching for student learning, in contrast to allowing the official curriculum to dominate. Teaching for student learning requires in-depth understanding of the students and a thorough knowledge base of the content and the learning theories that are salient to the instruction (Kolis and Dunlap, 2004).

In a study of teachers' content knowledge for teaching early literacy and word-level reading skills, teachers with higher levels of reading-related preparation and experience perceived themselves as more knowledgeable and outperformed their peers with less background on five reading knowledge tasks implying that explicit teacher preparation in reading knowledge accompanied with particular experiences can enhance a teacher's knowledge base (Spear-Swerling, Brucker, and Alfano, 2005). Teachers of reading should have understanding of English word structure (in United States schools) in order to teach word decoding, spelling, and vocabulary. Furthermore teachers of reading must have knowledge of reading-related abilities such as phonemic awareness and how reading develops in children (Spear-Swerling, Brucker, and Alfano, 2005). Teachers reported that their gains in phonological and phonics knowledge had a major positive impact on students' reading achievement in a study of the implementation of a large-scale reading intervention program that included on-going teacher professional development and support as a major component (Foorman and Moats, 2004).

The politicized context of time, place, and the prevailing ideology of the public shape what curriculum is chosen and by whom, and how the learners interpret the curriculum. What is prized in education is reflective of the political context. An individual teacher's beliefs about what should be taught shapes the curriculum through explicit attention to various aspects of the curriculum, through time given to subjects, even through the passionate or dull conveyance of objective. Despite governmental

efforts to standardize curriculum, no teacher is the complete mouthpiece of the state, and therefore, no curriculum is moved from paper to student without the addition of teacher subjectivity. Subconscious emphases and conscious choices about omitting and extending certain portions of the curriculum pervasively alter the intended formation of knowledge.

Teachers both intentionally and unintentionally alter the curriculum as they interpret it through individual lenses of class, culture, and gender. "The politics of representation of which we speak has to do with how a specific kind of knowledge, conception, or symbolic image of and about a thing, event, place, or people is constructed" (Crichlow, et. al., 1998, p. 1). The institutional bodies that develop the official curriculum are not exempt from the politics of representation. "As a form of symbolic representation, the curriculum confers legitimacy on the particular interests of dominant groups; naturalizes unequal social relations by obscuring their social construction; and 'screens' the knowledge and ideas which are finally admitted for transmission through curriculum" (Crichlow, et. al., 1998 p. 2). The teacher also screens knowledge and ideas for the consumption of students. "Curriculum speaks to issues regarding who decides what is to be taught, how knowledge is distributed among various groups of students, how the content matter is disseminated, and more important, in whose interest knowledge and information is given" (Gordon, 1997, p. 228). The rhetoric surrounding teacher qualifications presupposes that a teacher's particular certification assures students of equal access to knowledge. A more accurate question regarding teacher qualification concerns the teacher's ability to make instructional and curricular choices with regard to students and all students' access to highly qualified teachers. This question more deeply addresses inequitable distribution of teachers to students of varied classes, races, and genders.

The official state curriculum tends to define and narrow the curriculum in a way that intentionally limits the subjective role of the teacher. Hoffman (1999) claims that the National Institute for Child Health and Human Development reading research agenda depicts a decontextualized, simplistic vision of schooling and teaching and deemphasizes the professional role of the teacher to be responsive to students and have decision-making efficacy while valorizing phonological knowledge of teachers as the most critical aspect of reading teaching.

Instructional practices that are likely to facilitate children learning to read are thematically linked through the role of the teacher as modeling skilled, fluent reading and structuring reading instruction to scaffold students' skills and explicitly teach the thinking processes of reading (Reutzel and Smith, 2004). In a study of a comprehension intervention in five classrooms, the teachers who implemented the intervention with the greatest fidelity generally had students who made the highest gains on the outcome measure of reading comprehension (Klingner et al., 2004). "Effective reading instruction is associated more with independent teacher action than with implementation of basal text prescriptions, teachers are encouraged to be adaptive, to modify instructional materials, to create their own instructional programs, to be responsive to students' understandings, and to analyze what they are doing and why" (Duffy, 1993, p. 233). For example, primary grade students made an average reading gain of two levels which is equivalent to half the academic year in a study of teachers learning and applying a teaching/learning cycle in their daily planning and moving from whole-class to small-group or one-on-one instruction, articulating instructional goals with students and providing clear, specific feedback to students on discrete skills (Jinkins, 2001).

PART II SUMMARY

At-risk students who have difficulty in reading have been demonstrated as having pervasive scholastic difficulty. High-stakes testing and accountability measures have worked to illuminate differentials in achievement between groups of students based on language proficiency, race, class, and gender. Although the body of reading research studying students who are English language learners is still in its beginning stages, preliminary results demonstrate that students who are learning English may respond to reading intervention similarly to monolingual students who have reading difficulties. The convergence of scientific studies of reading, attention toward students with reading difficulties, and increased pressure to attain high levels of reading achievement has brought additional attention to the work of teachers.

Not only must contemporary reading teachers have rigorous content knowledge about the processes and skills that students need to learn how to read, teachers must also consistently rely on their own process knowledge to make decisions about curriculum, instructional strategies, and classroom management in a highly contextualized, responsive manner. Teachers' knowledge is compromised as it is evident that professional development about instructional strategies and managing small-group instruction is lacking. Teachers respond by combining their beliefs about students and content area with the knowledge they have gathered to make decisions, sometimes in opposition to the official policy or curriculum they are intended to enact. Ongoing disagreement within the field of reading research about some essential elements of reading teaching have further complicated the professional knowledge landscape. Yet,

teachers and students continue to pursue reading achievement as a critical component in schools across the nation. We will examine one district and the challenges and successes it faces in the coming chapters.

CHAPTER THREE – RESEARCH METHODOLOGY

> What can be done with thousands of children but count them? In mass, children – and the challenges they present – are faceless, nameless, and overwhelming. But these massive numbers of children are not isolated individuals; they're social participants included, or so we hope, in particular classrooms and schools, in particular institutions and communities (Dyson, 1995, p. 51).

The literature review yielded substantial evidence that reading has been studied and researched from a variety of perspectives. This dissertation used mixed methods case study to investigate the research questions in an effort to illuminate how reading intervention occurred within a particular context. This study employed a time series design over three years to remove the potentially weaker results generated by the prevailing pattern for evaluation of programs that rely on achievement gains within a short time period, such as one year (Dyer & Binkney, 1995). The following chapter details the theoretical frames that have guided the research design, the context of the study and its participants, data collection and analysis, the timeline in which the research was conducted, and the positionality of the researcher.

THEORETICAL FRAMEWORK OF THE RESEARCH

Ontological and epistemological assumptions that arise from paradigmatic associations about the nature of reality and how it is known frame the search for understanding and position knowledge as generated or revealed (Miller & Fredericks, 2006). Guba and Lincoln (1998, p. 195) argue that "questions of method are secondary to questions of paradigm, which we define as the basic belief system or worldview that guides the investigator." In contrast, Howe (1988) has argued that the stance of the

researcher is more clearly elucidated through examination of the form and use of methodologies rather than through a logic in which paradigm supersedes methodology. For example, although a positivist or postpositivist stance of the researcher is often assumed when quantitative data analysis is present, research that seeks to catalyze social or political action should be categorized more correctly as transformative or critical (Mertens, 2005; Crotty, 1999). Reducing research to either quantitative or qualitative invokes a false dichotomy and dangerously masks the goal of the research. "The distinction between qualitative and quantitative research occurs at the level of methods. It does not occur at the level of epistemology or theoretical perspective" (Crotty, 1999, p. 14). If research must be categorized, a more accurate descriptor emerges when the "worldview that guides the investigator" and researcher's beliefs about the nature of the world are included as classifying criterion (Guba and Lincoln, 1998, p. 195). Feminist researchers, for example, have articulated their own relationships that cross paradigm and methodology and that, "these new articulations then refocus and redefine previous ontologies, epistemologies, and methodologies" (Lincoln & Denzin, 1994, p. 575). The purposes of research in concert with paradigmatic associations; research as evaluation (Payne & Biddle, 1999; Yin, 2003), research as appreciation (Reitzug, 1994), research as praxis (Lather, 1986), research as interruption (Cary, 2003; Lather, 1991); provide far more compelling and accurate descriptions than binary separation based on the use of statistics in the methodology of the work.

The U.S. Department of Education's Strategic Plan (2002) has had the effect of stratifying education research, in effect promulgating research that employs quantitative

methodology and diminishing potential research using qualitative methodology (Flinders, 2003). Increases or decreases in research using a particular methodology extend beyond mere bifurcation of research to impacting the nature of education research and the ways in which education is characterized popularly and academically (Davis, 2003). Apple (2000) warned that continuous framing of education within a particular agenda has led to neglect of potential visions of education. His warning analogously extends to the research debate as well. Should education be written and spoken only in the language of one methodology, another language is lost along with the complex voices that illuminate another vision of education.

With acknowledgement of the contemporary landscape of education and the aforementioned valorization of quantitative methods, I have employed quantitative and qualitative data analysis in concert through mixed methods in an attempt to reduce the bias of quantitative research toward answers to bottom-line questions that determine elements of program implementation and success (Collins, Owuegbuzie, & Sutton, 2006). Through case study methodology, the stories of challenge, success, and strategy can inform the education field in rich ways that have profound potential to impact the improvement of education for our students. Examples of methods used outside of traditional expectations abound, in turn necessitating a more complicated matrix for analyzing research than the broad methodological categories of quantitative or qualitative (see McNeil, 2000; Glesne, 1999; Yin, 1995; Pekrun, et.al, 2002).

Mixed methods research has been criticized for the potential conflicts that arise from the researcher's paradigmatic assumptions when attempting to use both quantitative

and qualitative methods (Tashakkori and Teddlie, 1998; Miller and Fredericks, 2006). The use of quantitative methods often assumes the position that knowledge is objective and that truth can be defined, whereas the use of qualitative methods typically assumes that, in the broadest sense, knowledge is subjective and cannot be defined without context (Guba and Lincoln, 1998). Quantitative and qualitative methods were employed in this dissertation within a paradigmatic assumption that knowledge is contextualized and requires participation of the knower in order to be understood. In qualitative research, "subjectivity is not seen as a failing needing to be eliminated but as an essential element of understanding" (Stake, 1995, p. 45).

Eisner (1997, p. 159) associated the development of qualitative methodology with creating "a fundamentally different conception of education," implying that natural reality and social reality are different kinds of reality requiring differing kinds of methodological investigation (Crotty, 1999). Since knowledge is co-constructed, the researcher selects methodology that privileges opportunity for the researcher and researched to share the process of developing understanding.

This dissertation is grounded in the constructivism paradigm which "denotes an alternative paradigm whose breakaway assumption is the move from ontological realism to ontological relativism" (Guba and Lincoln, 1998, p. 203). As typical of research within the constructivism paradigm, the goal of this research will be to understand the socially-constructed reality through the utilization of transactional methods that root interpretations and outcomes in the contexts and persons in the study (Mertens, 2005; Crotty, 1999). The paradigmatic assumptions of constructivism guided me to select case

study as a system for investigating the phenomena of reading intervention in one district in order to understand the processes and products of its enactment.

CASE STUDY

"Case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes" (Yin, 2003, p. 10). The dominant goals of this study are a) to provide specific information about the efficacy of reading intervention for struggling readers, and b) to contribute to knowledge in the field about the features of effective design and implementation for large-scale reading intervention programs. As such, case study methodology provides a framework for contributing to general theory, while simultaneously examining the specific occurrence of reading intervention as implemented in this district.

Stake (1995, p. 2) discussed case study as a bounded system in which the case "is a specific, a complex, functioning thing" calling it case study "the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances" (Stake, 1995, p. xi). This case is bounded by the phenomenon under study, reading intervention as conducted in a public school district. Through research of the phenomenon, four sites will be studied as subcases within the overarching case study (Merriam, 1998). Patton (1990, p. 169) recommended purposive sampling for selecting "information-rich cases." I used the subcases to reveal the contrasts between the ways that individual schools implemented reading intervention.

Yin (2003, p. 15) similarly considered the place of case study methodology in education research in documenting that, "The most important [application] is to explain the causal links in real-life interventions that are too complex for the survey or experimental strategies." Yin (2003, p. 15) advocated the use of case study methodology for describing "an intervention and the real-life context in which it occurred." Case study methodology in evaluation research enables the researcher to illuminate the field in which the program occurs and provide a layered understanding of the object under investigation, or the program, as in this study. Merriam (1998, p. 29) indicated that, "the end product of a case study is a rich, 'thick' description of the phenomenon under study."

The program design as implemented by the district in this study aligned with the features of effective intervention that repeatedly emerged in the literature review. By employing case study methodology and narrative reporting procedures, I can more accurately portray the results of the study within the holistic context of a district and the incumbent limitations that accompany campus-based decision-making in public school settings. "Case studies illuminate the reader's understanding of the phenomenon under study" (Merriam, 1998, p. 30) and allow for previously unseen relationships to emerge. While the research questions will guide my decision-making process as a researcher, I can remain attuned to new understandings of the entity because my methodological goal is to depict the case in a layered and particularistic manner by including an emic (insider) perspective. Guba and Lincoln (1998, p. 198) indicate that "qualitative data, it is affirmed, are useful for uncovering emic views; theories, to be valid, should be qualitatively grounded."

Through case study methodology, this dissertation can comprehensively address the efficacy of reading intervention in this district while addressing larger theoretical questions present in the field regarding reading intervention program design. The case study provides an exceptional format for reporting the findings due to the narrative structure that allows for the discussion of the unique, discrete and complex features that intertwine to form the bounded case under study.

Not only is case study a natural fit for this dissertation, but there is an established tradition of the use of case study in literacy research (Barone, 2004). Case study in literacy research has been used to bridge the gap between theoretical propositions and practical application (Greenwood, et al, 2003). Since literacy research often takes on the examination of a particular reading intervention, the use of case study has also proliferated in fields of research concerned with the implementation and effectiveness of intervention (Fiorello, et al, 2006).

Yin (2003) described four tests for judging the quality of empirical social research that are commonly used. They include construct validity, internal validity, external validity, and reliability. The methods for ensuring quality in this research will be detailed further in following sections about data collection and analysis.

MIXED METHODS DISCUSSION

My purpose in using mixed methods was "to use multiple lenses simultaneously to achieve alternative perspectives that are not reduced to a single understanding" (Mertens, 2005, p. 293). The chief advantage to mixed methods research is in its

potential to draw from the strengths of both quantitative and qualitative methods alone while diminishing the weaknesses of both when combined together to answer a single research question (Tashakkori and Teddlie, 1998). Although mixed methods research does not offer a third, perfect solution to the perceived shortcomings of monomethod research, it can attempt to "fit together the insights provided by qualitative and quantitative research into a workable solution" (Johnson and Onwuegbuzie, 2004, p.16).

Datta (1994, p.5) referred to the most significant perceived weakness of mixed methods research by using the phrase "mixed-up models" to indicate a lack of theory or paradigmatic world-view that guides the research. Others cite the incompatibility thesis that negates the possibility of both a subjective and objective role of the researcher within a single study as well as antithetical purposes and aims of the research itself (Howe, 1988). The objections to mixed methods research have rested heavily on the differences between qualitative and quantitative research dominating research discourse rather than a model in which qualitative methods and quantitative methods are located on a continuum (Johnson and Onwuegbuzie, 2004). Perceived weaknesses of mixed methods research also include practical issues such as the labor intensity required to collect both types of data (Collins, Onwuegbuzie, and Sutton, 2006). The demands on the researcher are also great, requiring her to be versed in approaches to both types of research (Mertens, 2005).

Despite the perceived shortcomings, some researchers "see mixed methods as offering a practical solution to the tensions created in the research community concerning the use of quantitative or qualitative methods" (Mertens, 2005, p. 27). The pragmatic parallel mixed methods/models design seeks practical solutions through the simultaneous

collection of quantitative and qualitative data, or with a brief lag in time, to answer the research questions of a single study (Onwuegbuzie and Teddlie 2002; Tashakorri and Teddlie, 1998). Enhancing the aims of mixed methods research, Cresswell et al. (2002) characterized mixed methods studies that seek to promote change at any level as transformative or emancipatory in terms of philosophical paradigm. In mixed methods studies conducted within a transformative paradigm, underrepresented populations are sought and studied with great attention to action-oriented or value-based dimensions. While it is not my aim to preclude interpretation of this research through pragmatic or transformative lenses, my primary aim is to develop a case study using mixed methods so that the interpretation of this phenomenon, reading intervention, "can be better understood if one looks at it in multiple ways" (Miller and Gatta, 2006, p. 596).

In terms of methodology, mixed methods studies are more than just the sum of qualitative methods and quantitative methods. Tashakorri and Teddlie (2002) indicate that mixed methods designs transcend the simple combination of two methodologies and, therefore, require additional criteria for judging quality. Assessing the integrity of qualitative and quantitative methods as they are derived from the assumptions of their respective paradigms is a starting point for the critique of the quality of mixed methods designs (Morse, 2002 in Mertens, 2005). Mertens (2005) also suggested that employing the standards of quality research for quantitative methods and qualitative methods can be useful for assessing the quality of individual parts of the study. For this reason, subsequent sections of this chapter address the standards of rigor and how this

dissertation study has met those standards to ensure that the sum and the parts of this study meet the definition of quality.

Statistical analysis as found in quantitative research is not necessarily an objective, values-free endeavor (Gorard, 2006). The subjective nature of research is also recognized by qualitative researchers who often explicitly acknowledge the role of the researcher's positionality in shaping the research by using reflexivity (Oleson, 1994). In this dissertation, the positionality of the researcher was acknowledged throughout the quantitative and qualitative analysis in an attempt to reveal the choices and assumptions that have guided the design of this study.

Johnson and Onwuegbuzie (2004) define mixed-model research as research that includes qualitative and quantitative approaches across the stages of research. Mixed methods research, in contrast, is constructed as two endeavors in which the results are combined to form an integrated product. In mixed methods research, the researcher must make two essential decisions including whether or not one paradigm will be emphasized over the other and whether to conduct the phases of research sequentially or concurrently (Johnson and Onwuegbuzie, 2004). In this dissertation, I intended to give equal emphasis to qualitative and quantitative data collection and interpretation although I have used a sequential design (see Figure 1).

FIGURE 1: SEQUENTIAL MIXED METHODS DESIGN (Tashakkori and Teddlie, 1998)

The intelligibility and interpretability of the quantitative data diminishes significantly in the absence of the context of the qualitative data (Mertens, 2005). "The goal of mixed methods research is not to replace either of these approaches but rather to draw from the strengths and minimize the weaknesses of both in single research studies and across studies" (Johnson & Onwuegbuzie, 2004, p. 14). This dissertation employed a sequential mixed methods design so that the each methodological phase of the research could inform the other, but still allow the assumptions and processes of the methods to remain intact (Tashakkori and Teddlie, 1998). The quantitative data collection and preliminary data analysis was conducted prior to qualitative interview data collection and analysis so that the interview informants would be able to contextualize the statistical findings and conclusions, as well as represent challenges and successes that did not emerge with statistical analysis alone.

Although mixed methods research does not have a strong historical background in education research, mixed methods case study has been used frequently in special education research and other studies of intervention that have pioneered frameworks for conducting mixed methods research (Collins, Onwuegbuzie, and Sutton, 2006; Greenwood, et al, 2003; Cwikla, 2002). Johnson and Onwuebuzie (2004) outlined steps

for conducting mixed methods research including: 1) determining the research question, 2) determining the appropriateness of mixed design, 3) selecting mixed-method or mixed-model design, 4) collecting the data, 5) analyzing the data, 6) interpreting the data, 7) legitimating the data, and 8) drawing conclusions. These steps are similar to any research plan, although noteworthy differences between single method designs and mixed method designs exist in the stages where data is analyzed and legitimated.

In mixed methods research, data analysis goes beyond the parallel analysis and presentation of each form of data collected toward an integrated product (Collins, Onwuebuzie, and Sutton, 2006). Onwuegbuzie and Teddlie (2003) provide the following seven stages of data analysis for mixed methods research:

- data reduction – reducing the dimensionality of the data
- data display – pictorially describing the data
- data transformation – converting one form of data into another form for analysis (indicated as optional)
- data correlation – correlating the two forms of data
- data consolidation – combining quantitative and qualitative data together to form new or consolidated variables
- data comparison – comparing the forms of data against one another
- data integration – developing a coherent whole or two separate sets of a coherent whole from the forms of data

In data legitimation, the trustworthiness of both qualitative and quantitative data and subsequent interpretations of the data are assessed (Johnson and Onwuegbuzie, 2004). Trustworthiness is a global concept accepted by qualitative researchers that

transfers to mixed methods research as an ultimate question of whether or not the research findings are credible and worthy (Tashakkori and Teddlie, 1998). In the following sections, quality in both quantitative and qualitative methods will be discussed.

CONTEXT OF THE STUDY

Clover ISD[1] is a large public school district that includes more than one community in North Texas. Still under a desegregation court order, the district uses a school choice program that allows parents to select the school that students will attend within certain guidelines each year during a 30-day choice period.

During all three years of the study, ISD was an Academically Acceptable district according to the Texas school rating system. (For a complete summary of the Texas accountability system, see Appendix E.) As reported in the Academic Excellence Indicator System (AEIS), during the first year of the study, 2003-2004, ISD had 54,925 students enrolled in early childhood education through twelfth grade. Of the total enrollment, 39.4% of students were white, 36.9% of students were Hispanic, 18.5% of students were African-American, 7.2% of students were Asian, and 0.5% of students were Native American. (See Table 1 for a summary of student ethnicity in the district for the three years of the study) ISD has bilingual and English as a Second Language programs in which 17.5% of all enrolled students are participating although 22.1% of all enrolled students are coded as Limited English Proficient (LEP). The district has a

significant population (40.6%) of students who are economically disadvantaged according to participation in the federal free and reduced lunch program. The standardized local tax base for this district is $204,649 which is lower than the state average, as is the per pupil expenditure of $5791.

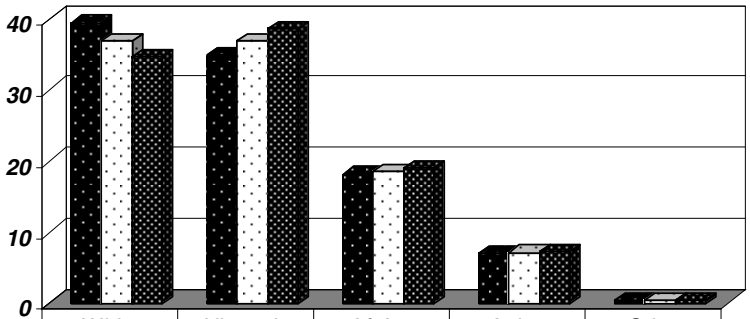
In 2004-2005, the second year of the study, Clover ISD grew to 55,871 students enrolled in early childhood education through twelfth grade. The percentage of white students decreased to 36.9% of enrolled students while the percentage of Hispanic students increased to 36.9%. Percentages of African-American students (18.2%), Asian students (7.0%), and Native American students (0.5%) remained approximately the same as the previous year. The Bilingual/ESL enrollment grew to 18.7% of the total enrolled student population while the total LEP population remained consistent at 22.2% of the total enrollment. The percentage of students coded as economically disadvantaged grew to 42.9% of the total enrollment. The standardized local tax base for 2004-2005 increased to $210,034 per pupil but remained below the state average as did the per pupil expenditure of $6014.

In 2005-2006, the third and final year of the study, Clover ISD grew again to 56,955 students enrolled in early childhood education through twelfth grade. The percentage of white students fell to 34.6% percent of all students while the percentage of Hispanic students increased to 38.6%, marking the first year that Hispanics were the largest ethnicity in the district. Again, percentages of African-American students (19.0%), Asian students (7.3%) and Native American students (0.5%) remained roughly

[1] Psuedonym

equivalent to previous years. The total LEP population modestly increased to 23.1% while the percentage of students enrolled in Bilingual/ESL programs decreased to 19.8% of the total enrollment. The percentage of students coded as economically disadvantaged again grew to 45.3% of the total enrollment. The standardized local tax base for 2005-2006 increased to $213,222 but remained below the state average as did the per pupil expenditure of $6317.

Table 1 – District by Percentage Ethnicity



	White	Hispanic	Af-Am	Asian	Other
2003-2004	39.4	34.9	18.2	7	0.5
2004-2005	36.9	36.9	18.5	7.2	0.5
2005-2006	34.6	38.6	19	7.3	0.5

PARTICIPANTS

Data were collected on all students who were enrolled in Clover ISD in the third grade in 2003-2004, fourth grade in 2004-2005, or fifth grade in 2005-2006, yielding 4428 students. Using the ethnicity reported by the parent on the enrollment card, 38.8% (N=1719) of students were Hispanic, 34.7% (N=1535) of students were white, non-

Hispanic, 19.0% (N=842) were African-American, 6.9% (N=305) were Asian, .6% (N=25) were Native American, and .0% (N=2) did not have an ethnicity recorded. Of all students, close to one-third, 30.1% (N=1332) were either current year Limited English Proficient (LEP) or previous year LEP.

Two versions of the reading TAKS test are available to students based on the student's language proficiency and time in the United States. Students who participate in a LEP program and who meet guidelines set forth by the Texas Education Agency may take the reading TAKS in Spanish. In third grade and fifth grade, students have three opportunities to take the reading TAKS. Only the first of the three administrations in each year was included in this study and will hereafter be denoted as the first administration. On the first administration of the third grade reading TAKS, 92.6% (N=3571) of students who took the TAKS were administered the test in English and 7.4% (N=287) of TAKS testers were administered the test in Spanish. In fourth grade, 96.8% (N=3462) of students who took reading TAKS were administered the test in English and 3.2% (N=115) of students who took TAKS were tested in Spanish. On the first administration in fifth grade, the percentage of students who took the reading TAKS in Spanish continued to decline with only 1.5% (N=52) testing in Spanish and 98.5% (N=3389) testing in English.

To maintain reliable tracking, students were retained in the data set if a score code was recorded for the first administration of the reading TAKS in each of the years of the study. Each student has six possible score codes if enrolled at the time of the TAKS administration. Students who participate in the TAKS with modifications that do not

alter the test receive a score code of "S" indicating that the assessment should be scored. Of the students enrolled, 87.1% (N=3858) of students were scored on the first administration of the reading TAKS in third grade. On the only administration of the reading TAKS in fourth grade, 80.8% (N=3577) of students were scored. On the first administration of the reading TAKS in fifth grade, 77.7% (N=3441) of students were scored.

Students who participate in the State-Developed Alternative Assessment (SDAA) due to enrollment in a special education program receive a score code of "Q" and are not administered the TAKS. On the first administration of the reading TAKS in third grade, 3.1% (136) of students did not participate due to an alternate assessment. On the only administration of reading TAKS in fourth grade, 1.1% (N=49) students were not scored on TAKS due to the administration of an alternate assessment. The percentage returned to an amount comparable to the third grade reading TAKS on the first administration of the reading TAKS in fifth grade with 3.8% (N=169) of students participating in an alternate assessment.

Students who are exempt from TAKS due to LEP status receive a score code of "L" and are not administered the TAKS. The percentage of LEP exempt students was below 1% in each of the three years with .6% (N=25) in third grade, .4% (N=18) in fourth grade, and .1% (N=6) in the fifth grade administration.

Students who are absent on the day the TAKS is administered receive a score code of "A." Again, the percentage of absences was less than 1% of all test takers in

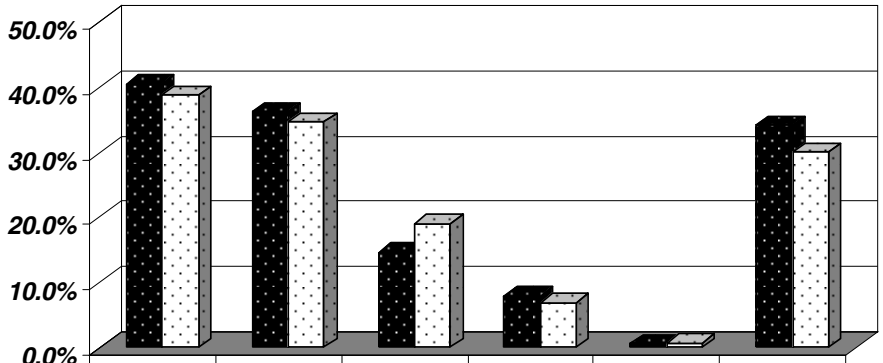
each of the three years with .2% (N=7) in third grade, .2% (N=10) in fourth grade, and .2% (N=7) in the fifth grade administration.

Students who have a testing irregularity and whose tests are not scored receive a score code of "O." In each of the third-grade and fourth-grade administrations, only one student received a score code of "O." In the fifth grade administration, ten students received a score code of "O."

Students who have a "D" did not have an answer document submitted for that particular administration. In the fourth grade administration, .5% (N=24) of students were reported to have a "D." No students in third or fifth grade administrations had score codes of "D."

Due to attrition in the data set from the aforementioned score codes in addition to student mobility out of the district, 69.1% (N=3061) of the total students enrolled in the district in grades three through five from 2003-2006 were reliably tracked with scores on all three of the first administrations of reading TAKS. Of the students who were participants in the study, percentages of students of each ethnicity were similar to the entire population. Hispanic students accounted for 40.6% (N=1243) of the data set, 36.3% (N=1111) of students were white, non-Hispanic, 14.7% (N=449) of students were African-American, 7.9% (N=243) of students were Asian, and .5% (N=15) of students were Native American. Nearly one-third, 34.2% (N=1048) were current or prior year LEP students. A comparison of the sample and population by ethnicity appears in Table 2.

Table 2 – Sample and Population Comparison



	Hispanic	White	African-American	Asian	Native America	Current or Prior LEP
Sample	40.6%	36.3%	14.7%	7.9%	0.5%	34.2%
Population	38.8%	34.7%	19.0%	6.9%	0.6%	30.1%

The selection of campuses for inclusion in interviews is detailed in a following section about qualitative data collection (see p. 97). Through that process, four principals and eight teachers participated as interview subjects in addition to the current Reading / ELA Coordinator for the district.

Part I – Quantitative Methods

QUALITY AND VALIDITY IN QUANTITATIVE METHODS

"All researchers recognize the need not only for being accurate in measuring things but logical in interpreting those meanings" (Stake, 1995, p. 108). Yin (2003, p.

33) described four tests of quality for "any empirical science research": construct validity, internal validity, external validity, and reliability. Internal validity ensures that change in the dependent variable is due to the independent variable rather than another source (Yin, 2003). External validity ensures that the results of the study can be applied to another similar situation (Yin, 2003). Quantitative methodology employs a variety of statistical procedures to ensure that internal and external validity and reliability are maintained (Mertens, 2005). External and internal validity tests rely on knowledge as objective. These tests also indicate the extent to which the researcher should be removed from the process of interpretation in quantitative research as well as the construction of meaning. The aim of most quantitative research is knowledge that is value-neutral and that can be verified, manipulated, and discovered (Mertens, 2005). To ensure the validity of the study as a whole, the portion of this study using quantitative methods was judged against recognized standards for data collection and analysis in mono-method quantitative studies.

Bracht and Glass (1968) put forth three aspects of external validity that included population validity, personological variables, and ecological validity. In population validity, the research results are examined to determine whether the findings from the sample in the study are generalizable to the population. Personological variables refer to traits or characteristics of the study participants that have an interaction effect with an experimental treatment. The first two aspects are addressed by the sample size used in this study, which is large in comparison to most educational research. Since the sample included the population for the three years in this district, the findings should be

generalizable to other districts with similar demographics. Additionally, the sample size should make findings robust to violations of validity that arise due to individual traits or characteristics.

Ecological validity refers to the situational conditions that may have impacted the research findings. Although some situational factors were present at the time of the study such as particular criteria for including students, the research was conducted under normative educational practice. Any particular situational diversions from normative practice will be detailed and reported in the following chapter.

Predictive validity is of concern in this study due to the development of the regression equation with the goal of estimating the likelihood of future performance. A typical approach is to obtain a predicted value and then wait to determine if that value was actually obtained (Mertens, 2005). This research will predict values for students who have already obtained a value on the terminal measure, so the extent that predictive validity was achieved will be reported with the findings.

Internal validity indicates the extent to which the observed changes can be attributed to the effect of the independent variable rather than an extraneous variable (Mertens, 2005). Since this study is being conducted with extant data collection, several threats to internal validity that concern differential treatment of the experimental and control group are eliminated. Other threats to internal validity will be controlled with statistical analysis and the reporting of possible rival hypotheses.

Reliability ensures that the data collection instruments consistently measure a particular attribute accurately (Popham, 1993). Reliability in the quantitative portion of

this study was guaranteed to the extent that the data collection instruments were standardized for use in large-scale education assessment apart from this study. Each of the assessments administered to students were tests developed that typically employ repeated measures reliability in which alternate forms and field test questions are used as routine practice.

The final element of quality in quantitative research is objectivity in which the degree to which the instrumentation or analysis is subject to the biases or beliefs of the investigator (Mertens, 2005). In an effort to diminish my objectivity, I have worked to disclose my biases within the reporting structure.

DATA COLLECTION - QUANTITATIVE

Data were collected about the district using the Academic Excellence Indicator System (AEIS). The Texas Education Agency uses AEIS to combine a broad range of information about Texas districts and charter schools from the Public Education Information Management System (PEIMS). AEIS includes testing data that is disaggregated by population and data regarding school and district staff, finances, programs, and student demographics.

Data that were collected from the district included data sent to the state data management system known as PEIMS, Reading Intervention Data Collection forms, Texas Primary Reading Inventory (TPRI) results of students identified for reading intervention, Iowa Test of Basic Skills (ITBS) language and reading national percentile rank totals, Cognitive Abilities Test (CoGAT) verbal and nonverbal scale scores and

national percentile rank totals for fifth grade students, and reading TAKS results of all participants in the subject pool.

Four measures of reading achievement and ability were used in this study: 1) the Texas Primary Reading Inventory (TPRI), 2) the Texas Assessment of Knowledge and Skills (TAKS), 3) the Iowa Test of Basic Skills (ITBS), and 4) the Cognitive Abilities Test (CogAT).

In October of each year of the study, teachers identified students for reading intervention and submitted a list of identified students to the Intermediate English Language Arts Coordinator on the Reading Intervention Data Collection Forms that identified students as needing reading intervention. In May of each year of the study, teachers provided information about whether the student had participated in small-group reading intervention during the school day, small-group reading intervention and extended-day reading intervention, or extended-day reading intervention only. The district's department of Planning, Research, and Evaluation maintained ethnicity information for all students as well as individual reading TAKS results for all third, fourth, and fifth grade students in a data file that contained individual student raw score, scale score, campus where the student participated in testing, testing date, testing version, and score code. The Planning, Research, and Evaluation department also maintained and provided additional data for fifth grade students in the final year of the study. These data included ITBS reading and language national percentile ranks, verbal and nonverbal results from the CoGAT, and current and prior year LEP status.

These data sources were maintained by the district and did not require the investigator to contact any students. The investigator received data in a masked form and the researcher did not know the identity of the students.

As stated previously, students were included in the study based on their participation in the administration of the reading TAKS in third, fourth, and fifth grades within the district. Data were used to group students into five mutually exclusive categories: a) students who were identified and served with reading intervention for one year only, b) students who were identified and served with reading intervention for two years only, c) students who were identified and served with reading intervention for all three years of the study, d) students who were never identified for reading intervention, and e) students who were identified for reading intervention for at least one year but who were never served. Demographic and descriptive information about these students will be detailed with the statistical analysis in the following chapter.

DATA ANALYSIS - QUANTITATIVE

Students were grouped based on their identification for reading intervention and how they were served with reading intervention as previously discussed. This case study employed a multiple measure design with between-group and within-group comparisons using test data collected from routine test administrations that were either criterion (TAKS) or norm-referenced (ITBS and CoGAT) assessments while the students were in grades three, four, and five. Several data points were used to increase the internal validity of the study.

A variety of statistical analyses were employed to address the first research question.

> *Does participation in reading intervention and extended-day programs significantly narrow the gap between students who are identified as at-risk for reading difficulty and students not identified as at-risk for reading difficulty?*

There are at least three subparts to the first research question that required different statistical methods. First, it must be noted that students who are identified for intervention as well as students who are never identified for reading intervention must all meet a set passing standard on the third and fifth grade reading TAKS in order to be promoted to the next grade according to the Student Success Initiative. If identified students still fail to meet the passing standard on the reading TAKS, then the question of whether or not the achievement gap has been narrowed is moot. Therefore, the first set of statistical analyses will examine primarily whether or not identified students met the passing standard. Secondarily, analysis was conducted to determine whether or not identified students met the passing standard similarly to non-identified students.

I used descriptive statistics to address whether identified students met the passing standard on each of the three reading TAKS administrations and to determine how students performed on the reading portion of the ITBS. An examination of the quantitative data in terms of practical significance in concert with statistical significance has the potential to yield more meaningful results (Mertens, 2005).

To address the similarity of performance between identified students and non-identified students, repeated measures Analysis of Variance (ANOVA) was used to test the hypothesis that there was a statistically significant difference between reading

achievement mean scores of the four groups. The fifth group, students identified one year but never served, was eliminated from this portion of the analysis since the group was very small (N=35) in comparison to the other groups and not theoretically interesting to this portion of the study regarding the differential performance between identified and non-identified students based on the provision of intervention. Intervention group was the independent variable and reading TAKS score was the dependent variable. The researcher used the Statistical Package for the Social Sciences (SPSS) for all computation.

Repeated measures ANOVA was selected as the most appropriate test statistic since it addresses the equality of means and allows for all members of the sample to be tested under multiple conditions. Since the reading TAKS was administered each year assessing the same skill set over time, using the repeated measures ANOVA was more appropriate than a standard ANOVA in which a different assumption should be met regarding the relative independence of measures.

Analysis of Variance (ANOVA) relies on four assumptions (Field, 2005). First, data are from a normally distributed population. Second, the data must have homogeneity of variance. The third assumption is that the data are on an interval scale. Lastly, the data should be independent. Sphericity is an additional assumption that must be considered when using repeated measures ANOVA. In the following section, I will explain how these assumptions were either met or corrected in the analysis.

ANOVA depends on the assumption that the data have a normal curve. Since the reading TAKS is a criterion-referenced test, it is logical that the results do not meet the

assumption of normality in either the raw score or scale score form. When histograms were developed of the TAKS data in raw score form and in scale score form, the data had a negative skew. I used SPSS to correct the negative skew of the data and transform the raw scores to meet the assumption of normality.

Raw scores were used since ANOVA also requires the use of interval scale data. Reading TAKS results are reported for each student in raw score form and in scale score form. The raw score represents the number of items a student answered correctly on the assessment after adjustment for test items and meets the definition of interval scale data. The scale score represents an adjusted score that is used to compare student performance from year to year. Scale scores and raw scores do not have a linear relationship and cannot be interpreted interchangeably.

Accurate interpretation of ANOVA results depends on the assumption of equal between-group variances. Levene's test of homogeneity was used to determine if the group sizes were highly unequal or to determine if group variances were significantly unequal. Levene's test resulted in a p-value that was consistently less than .05, indicating that the error variance of the dependent variable (TAKS) was not equal across all groups.

Since the larger variance belonged to the smallest group, then the F-test was too liberal, meaning that statistically significant results were more likely to emerge than was strictly appropriate. At the outset of the research, I set the significance level at .05. To adjust for the liberality of the F-test due to variance in the groups, I adjusted the significance level to .01 for analyzing statistical significance in the study.

The final assumption for ANOVA is that the data must be independent. There is an approximate one-year interval between each first administration of the reading TAKS. The length of time between the administrations justified the independence assumption (Field, 2005).

The univariate approach to tests of within-subjects effects requires the assumption of sphericity. I used Mauchly's test of sphericity for within-subjects analysis using the default contrast scheme in SPSS, in which each level of the within-subjects factor is compared to the overall mean of all levels. Since the assumption of sphericity was violated and the estimate was over .75 (Field, 2005), the Greenhouse-Geisser correction to the degrees of freedom for determining the significance level and interpreting the ANOVA results was used as a more conservative statistic.

Within-group comparisons tested whether or not there were statistically significant differences in each of the reading TAKS administrations at a significance level of .01, as discussed previously. The tests of within-subjects effects yielded a significant difference between the four groups. Data from the Texas Primary Reading Inventory was gathered on all students who were identified for reading intervention in third grade (N=709). A repeated measures ANOVA was conducted on students who had these data available controlling for initial reading ability.

The second part of the first research question concerns the patterns of identification. By exploring the frequency of identification and de-identification, we can better understand the permanence of identification that may have an impact on effective program design. Identifying students for and providing students with reading

intervention becomes two very different processes if there is a set of new students every year or if students tend to be identified year after year. In other words, the descriptive statistical analysis addressed whether students were more likely to continue to be identified for reading intervention or if they tended to meet qualifying criteria for shorter periods of time.

Descriptive statistical analysis was used to determine patterns of identification across the three years of the study. In this manner, it was possible to provide deeper understanding of the first research question and gain information about the persistence of identification and to make recommendations regarding program design differentially based on whether students tended to be identified for only one year or if students were identified for several years.

Understanding and predicting performance in the fifth grade administration of reading TAKS is inherent in the first research question. Does participation in reading intervention and extended-day reading programs significantly narrow the gap between students who are identified as at-risk for reading difficulty and students not identified as at-risk for reading difficulty? Although the reading intervention program is designed to provide intervention over the course of one school year so that a student is successful on the reading TAKS administration in the same year, it is relevant to have a longitudinal understanding of the relationship between various data elements and outcomes on the reading TAKS. Multiple regression models were utilized to determine how relationships exist between identification for reading intervention and performance on reading TAKS, ITBS, and CoGAT (Miles and Shevlin, 2001). An F-test of linearity was conducted to

test the hypothesis that there is a linear association between participation in intervention and reading achievement.

In the multiple regression equation, the predictor variables initially considered were the level of participation in reading intervention, the raw score of the first administration of the third grade reading TAKS, the raw score of the first administration of the fourth grade reading TAKS, the reading ITBS national percentile rank, verbal CoGAT national percentile rank, LEP status, and ethnicity. The dependent variable was the raw score of the first administration of the fifth grade reading TAKS.

Each of the following assumptions of multiple regression were met in this analysis (Field, 2005):

1. The predictor variables were quantitative or categorical. The outcome variable was quantitative, continuous, and unbounded.
2. The predictors had non-zero variance.
3. There was no perfect multicollinearity.
4. Predictors were uncorrelated with external variables.
5. The variables of the residual terms were uncorrelated (homoscedasticity).
6. Errors were normally distributed.
7. All of the outcome variables were independent.
8. The mean value of the outcome variable was linear (Field, p. 169).

Dummy codes were used when categorical variables were included in the multiple regression equation. The level of intervention was a dummy code. Current year LEP status and ethnicity were additionally dummy-coded. Davis (1992 in Mertens, 2005)

argued that including ethnicity information in statistical analysis represents an uncomplicated understanding of the contextual relationship between culture and ethnicity. Ethnicity was reported by parents and/or guardians at the time of enrollment using a forced selection that allows the enrollee neither to choose more than one ethnicity nor to decline to choose an ethnicity. Qualitative research methods and reporting were used to highlight the variations of student and teacher experience within the school setting, although the statistical analysis is limited in this manner.

In order to account for the theoretical rationale for the inclusion and exclusion of particular predictor variables, the enter method in SPSS was used to develop a multiple regression equation, rather than the stepwise method. Blocks of predictor variables were created so that changes in R^2 could be determined.

Part II – Qualitative Methods

QUALITY AND VALIDITY IN QUALITATIVE METHODS

As discussed previously, the integrity of the qualitative portion of this dissertation will be judged according to acknowledged standards in qualitative research. "One of the assumptions underlying qualitative research is that reality is holistic, multidimenstional, and ever-changing: it is not a single, fixed, objective phenomenon waiting to be discovered, observed, and measured as in quantitative research" (Merriam, 1998, p. 202). Above all else, I must acknowledge my privileged position of researcher and ethically and sensitively participate in the domain that I am studying. Guba and Lincoln (1994) indicate that the conceptualization of validity and reliability in qualitative research should be different from that of quantitative research. In this section I will address the manner in which I have labored to conduct ethical, valid qualitative research.

Qualitative research employs credibility to ensure quality by selecting strategies such as member checking, triangulation, and persistent observation to promote thick description (Mertens, 2005). Mertens (2005) indicated that dependability, confirmability, and authenticity provide the watermarks for rigor in qualitative research. If the study is dependable, then changes that naturally occur over time are tracked and publicly acknowledged. Authenticity is marked through fairness of representation (Mertens, 2005).

Miles and Huberman (1994) outlined five main issues for judging the quality of conclusions in qualitative research. The first issue, objectivity or confirmability, is met through removal of acknowledged researcher bias. Miles and Huberman (1994)

suggested that, at a minimum, the researcher's biases are made explicit and that the study's methods and procedures are detailed clearly. I have included a section in this chapter regarding my position as a researcher and teacher. I disclosed the aims of this study and my position within the district to interview participants. Yin (2003) also addressed this issue by suggesting that an audit trail or chain of evidence be clearly delineated by the researcher.

Reliability or dependability is addressed through alignment of the research questions and the features of the study design (Miles and Huberman, 1994). Thirdly, internal validity, also called credibility or authenticity, refers to whether the findings make sense. An important goal of this research methodology is ensuring natural validity "in which the events and settings studied are uncontrived, unmodified by the researcher's presence and actions" (Miles and Huberman, 1994, p. 278). I attempted to glean a true story from each of the participants without unnecessary modification of their time and space.

External validity, or transferability, in qualitative research more often refers to analytic or case-to-case transfer rather than sample to population generalization (Firestone, 1993). Finally, utilization/ application / action orientation refers to "pragmatic validity" (Kvale, 1989a in Miles and Huberman, 1994, p. 280) or what the research does for its participants and consumers. This dissertation will be shared with stakeholders of the district at its completion with the hope that it will be used to improve programmatic decision-making where possible.

DATA COLLECTION – QUALITATIVE

The interpretive nature of qualitative methods allows for more effective description of reading intervention because it is contextualized within the site and gives voice to the actors of intervention (Denzin and Lincoln, 1994). Data collection was conducted with the consent of the participants and in full compliance with guidelines of the Institutional Review Board.

Multiple data sources were collected beginning in the fall of 2003. The qualitative data consisted of two primary sources. The first source of data was derived from semi-structured interviews that were approximately an hour in length conducted in the winter of 2007 with teachers, principals, and district coordinators. The second data source consisted of documents collected over the three-year period of the study from fall 2003 through spring 2006.

Interviews are one way to provide emic or insider perspectives (Stake, 1995). Topical interviewing was used in this research to reveal the insider's perspectives and knowledge regarding the specific programs under study (Glesne, 1999). The goal in conducting interviews was to bring to the foreground a sense of how reading intervention really worked and the informants' beliefs about its components and efficacy.

Merriam (1998) recommended evaluating the amount of structure in the interview that is desired as a way to decide which type of interview should be used. Semi-structured interviews were used in this research in order to avoid the problem that can occur in formal interviews in which the researcher's preconceived notions are affirmed and the interviewees' perspectives are stunted by the interview protocol (Merriam, 1998).

"The opportunity to learn about what you cannot see and to explore alternative explanations of what you do see is the special strength of interviewing in qualitative inquiry" (Glesne, 1999, p. 69). The interview protocols are available in Appendix B.

The interview data were triangulated through three primary sources. Interviews were taped and transcribed in addition to handwritten field notes taken during the interviews. Through member checking, participants triangulate the interpretations and observations of the researcher and validate the conclusions (Stake, 1995). Artifact collection is another form of data that will assist in triangulating observations and interpretations of the researcher (Merriam, 1998).

Stake (1995) urged interviewers to set aside time immediately after the interview in order to interpret and document the interview in quick succession. As an additional method of assuring trustworthiness and accuracy, documents were transcribed in a timely manner.

Selection of Campus Sites

I employed purposive sampling to select campuses for inclusion in the interview process (Patton, 1990). In stratified purposeful sampling, several cases are selected based on predetermined criteria with the benefit that contrasts can be made explicit (Mertens, 2005). Interviews were conducted in the winter of 2006 after the completion of the quantitative data collection. At the time of the interviews, there were forty-seven elementary campuses in the district. Two campuses were pre-kindergarten centers and were deleted from the potential sample because they do not have grades three, four, and

five. Six campuses were academic centers that had qualifying criteria for enrollment for at least a portion of their students. These campuses were deleted from the potential sample since they do not represent the general population. Two campuses were built during the years of the study and were deleted from the potential sample since the informants would not be able to remark on their experiences at the campus over the previous three years. The campus where I was employed during this research was deleted from the sample as well.

The remaining 36 campuses were evaluated for participation based on three factors. The first factor was index used in the 2005-2006 Bilingual Education/ ESL Program Evaluation conducted by the district in which all of the campuses were separated into quartiles based on the number of LEP students, the number of at risk students, and the number of free and reduced lunch participants. The second factor was the campus size. Campuses with fewer than 500 students were coded as a small school and campuses with more than 500 students were coded as a large school. The third factor was transportation. Campuses were coded according to whether or not students are bussed from another neighborhood to that school.

Three more campuses were deleted from the potential sample because they had inconsistencies in the index mentioned previously. All remaining campuses had indexes that fell in the consistent quartiles for each indicator. For example, all remaining fourth quartile schools had high percentages of LEP students, high percentages of at risk students and high percentages of free and reduced lunch participants in comparison to the cut score for each quartile. Of the remaining 33 schools, all of the schools in the first and

second quartiles were large schools with transportation. This meant that the six campuses in the third and fourth quartiles that had transportation were deleted from the potential sample. Additionally, five more campuses in the third and fourth quartile that had over 500 students were deleted from the potential sample.

This process yielded five potential sites in the first quartile, eight potential sites in the second quartile, four potential sites in the third quartile, and five potential sites in the fourth quartile, or 22 total potential sites. I used publicly available information about each site's academic success as measured by standardized achievement tests to further narrow the selection to one campus in each of the four quartiles.

Selection of Teacher Informants

At the time of each principal interview, I provided principals with general criteria for recommending specific teachers to be interviewed. I asked that principals select teachers who taught both reading intervention and extended-day reading, and that the teachers be knowledgeable about and successful in the teaching of reading. Principals then made recommendations so that at least two teachers were interviewed from each campus site. In the instance that the teacher interviews markedly differed, I was prepared to return to the site and conduct an additional interview.

DATA ANALYSIS – QUALITATIVE

Qualitative data collection often results in massive amounts of raw data that can potentially overwhelm even experienced researchers (Coffey and Atkinson, 1996). Stake (1994, p. 72) described qualitative data analysis as a process without a beginning, middle, and end in which the researcher should never cease to "make sense of things."

Miles and Huberman (1994, p. 10) described qualitative analysis in three steps: 1) data reduction, 2) data display, and 3) conclusion drawing and verification. Data reduction occurs before the data collection process through researcher decisions about frameworks, cases, questions, and collection methods, simultaneously with data collection, and after data collection up until the final report (Miles and Huberman, 1994; Merriam, 1998). Miles and Huberman (1994) argued that data reduction and data analysis are not separate moments, rather a bidirectional process in which one informs the other.

The second research question requires a specific examination into the nature of schools and districts that conduct reading intervention in an attempt to understand. The goals of the second research question align with the acknowledged orientation of qualitative research. Qualitative data collected from interviews and artifacts will be used to answer this question:

> *What are the features of reading intervention and extended day as implemented in various schools in a Texas school district?*

Interview analysis

Interview responses were analyzed using conceptually-clustered matrices. Conceptually-clustered matrices typically take a conceptual form or an empirical form (Miles and Huberman, 1994). In this research, the analysis took an empirical form as informants tended to answer different questions by tying their responses to prior questions and gave similar responses in different sections of the interviews.

Review of the data made an informant-by-variable matrix a logical choice for data display. Two different sets of matrices were used to facilitate multi-layered perspectives of the district and of the individual campuses that were interview sites. In one set of matrices, all of the interview responses were included and were role-ordered by the type of interview informant (coordinator, principal, or teacher) without discriminating a campus location. In the second set of matrices, each campus had a separate matrix that included the principal and two teacher informants. The coordinator informant was removed from the second set of matrices since she did not respond at the campus level. In this manner, distinctions between campuses arose and the unique qualities of the case were illuminated.

Since the interviews for the coordinator, principals, and teachers were not identical, the interview questions were thematically grouped across interview type in all of the matrices. For both sets of matrices, conclusions were drawn by reading across the rows to note relations between variables. Additionally, comparisons were made between cases by reading down the columns. The matrices are available in Appendix C.

In order to verify conclusions, I returned to the interview transcripts and field notes in order to verify my interpretations of the data collected throughout the coding and reporting stages.

Document analysis

In qualitative research, document analysis is basically a form of content analysis or, "a systematic procedure for describing the content of communications" (Merriam, 1998, p. 123). Yin (2003, p. 88) argued that the most important use of document evidence in case study is to "corroborate and augment evidence from other sources." In this dissertation, the document analysis was used primarily to triangulate data gathered from interview informants. When document evidence and informant responses were contradictory, I pursued the question through follow-up interviews and noted unresolved differences in the reporting of the findings in the following chapter.

"In this sense, the case study investigator is a vicarious observer, and the documentary evidence reflects a communication among other parties attempting to achieve some other objectives" (Yin, 2003, p. 87). An essential step in using documents in case study is confirming the accuracy of the documents (Yin, 2003; Merriam 1998). The documents collected in this dissertation consisted of memoranda and procedural guidelines provided by the district's school improvement office for the implementation of reading intervention.

MIXED METHODS DATA ANALYSIS

The goal of this mixed methods case study is to synthesize the findings from two veins of methodology without devolving into a synthetic or unnatural product. That goal is realized through data legitimation in which the researcher ensures that the data collected in each portion cohesively creates a distinct whole. The data were analyzed separately and then was analyzed as part of a whole so that findings could inform a greater understanding of the whole.

The mixed methods data analysis should not be viewed simply as another manner of triangulation, but rather as a distinct unit of analysis that yields findings and outcomes that would be diminished or uncovered in the use of one methodology at the exclusion of another (Miller and Gatta, 2006). In this research, I have relied upon the standards of narrative reporting for case study by weaving the story of the quantitative data with that of the qualitative data. As interview informants reported challenges they faced in implementing reading intervention effectively, I returned to exploratory quantitative data analysis to gain further insight into the nature of the issue in a recursive pattern.

TIMELINE OF DATA COLLECTION

The initial data points were generated in October 2003 when classroom teachers completed the school district's data collection forms and reported third-grade students who were identified as needing reading intervention based on the end-of-year second-grade performance of the Texas Primary Reading Inventory. In March 2004, third-grade students participated in the first administration of the reading TAKS test. Students who

did not meet the passing standard had two additional opportunities to meet the passing standard on two different versions of the reading TAKS in April 2004 and June 2004.

In October 2004, classroom teachers again completed the Data Collection forms and reported students who were identified as needing reading intervention based on third grade reading TAKS performance. Fourth grade students were administered their sole opportunity to participate in reading TAKS in April 2005.

In October 2005, classroom teachers used fourth grade student performance on the reading TAKS to complete the Data Collection forms and report students identified as needing reading intervention. Fifth grade students participated in the Iowa Test of Basic Skills in September 2005, the Cognitive Abilities Test (CogAT) in October 2005, and were administered their first opportunity to meet the passing standard of the reading TAKS for grade promotion purposes in February 2006. Students who did not meet the passing standard were provided two additional opportunities to pass the reading TAKS when they were administered different versions in April 2006 and June 2006.

Memos and other documents regarding reading intervention and the extended-day program were collected from fall 2003 through spring 2006. In winter 2007, principals, teachers, and the coordinator who had participated in reading intervention were interviewed by the principal investigator. Demographic information and other pertinent descriptive information about the interview subjects will be provided as results are reported in the following chapter.

SELF AS RESEARCHER

Throughout this journey of research and writing, like Peshkin (2000, p. 5), I have made many "decisions that affected the meaning of old data, the new data I sought to collect, the ongoing substance of my thinking, and what eventually I would write." My multiple roles as educator, scholar, and practitioner converge in my role as researcher with each of those roles dominating in cyclical form throughout my process thus far. I have sought and continually seek to avoid reductive conceptions of the participants in my study while I work to diffuse the subject-object dichotomy that can be easily adopted in quantitative research. I have used mixed method case study and a narrative reporting structure as a safeguard against reducing students to numerical data.

I am a campus-based administrator currently employed in the school district in the study. To strengthen the credibility and trustworthiness of this study, I have reflected on my role in the research and analyzed my own subjectivity in the reporting of the research. Additionally, I shared the findings of the research with the district.

I have struggled with the possibility of detrimental effects to the students and teachers involved. Inconclusive findings from my analysis resulting in alteration or termination of the program may have undue effects on the study participants. Potentially positive effects emerging from the research may counterbalance possible detrimental effects. For example, confirmation and continuation of the intervention programs may provide children a mechanism for improving reading achievement.

I originally became interested in this topic due to my role as a campus-based administrator in this district as I faced challenges in implementing extended-day

programs. It is far too vague to say that I have learned a lot from this process, and detailing all of my learning would be repetitive. I have learned how difficult it is to conduct a study of this magnitude in a district where I also work. I had privileged access to principals and teachers because the principals knew me, or had at least seen me in meetings. Their prior knowledge of me made it very easy to obtain their consent and set up appointments for interviews. I also suspect that they were more candid with me, "an insider," than they may have been with another researcher whom they did not know. These, however, do not sound like difficulties, and I was excited about my good fortune until it came time to report my findings. I found that I felt a strong responsibility to represent the teachers in their best light: as hard-working and compassionate professionals, even when they openly admitted to ignoring policies I knew were meant to be implemented. I was also conscious of my current, and possibly future, role in the district and whether or not unflattering portraits would impact my career. Ultimately, I came to the conclusion that I would have to trust that an honest and accurate depiction of a program that may need improvement would be appreciated because it would contribute to better serving the children of our district.

Due to my position as a campus-based administrator, it is important to me that this research yields useful information for those who make decisions about resource allocation and program maintenance. The decisions I make about this study will primarily be guided by my interest in understanding the relationships between reading achievement, intervention, and students in a way that promotes improvement to programs for students.

SUMMARY

This study is a mixed methods case study of an extant reading intervention program provided in a large urban district. I elected to use mixed methods so that qualitative data could be collected and analyzed in an effort to enrich the story of the quantitative data collection and analysis. Through case study methodology, the particular nature of the bounded case, or the district, could be discussed richly and thickly. This research was conducted under the assumptions of the constructivist paradigm, of which one research goal is to understand a socially-constructed reality by including participant informants.

Qualitative data were collected in the form of interviews with principals, teachers, and a district coordinator who had participated in enacting reading intervention in the district and at the campus level. Document and interview analyses were conducted to describe the features of effective intervention as conducted in one public school district with a primary goal of gaining an emic perspective and inviting participants to use their own voices in discussing the challenges and success of implementation.

The statistical analysis included repeated measures ANOVA that was used to describe mean group differences over time across years of intervention. Scores derived from standardized measures of reading achievement were regressed on program participation to describe associations between reading achievement and program participation. In an effort to more fully describe the complexities of implementing

reading intervention within one school year as is the prevailing model, descriptive statistical analysis was also conducted to illuminate practical significance in addition to statistical significance. In the following chapter, the quantitative and qualitative results will be presented in addition to legitimization of the data as found in exemplars of mixed methods research.

CHAPTER FOUR – DATA ANALYSIS

Section I – Quantitative Data Analysis

This chapter describes the results of the quantitative and qualitative data collection and analyses. The first section will present the findings from three main analyses: 1) descriptive statistical analysis to determine the passing rates of students identified for reading intervention within the school year and over three years, 2) repeated measures analysis of variance (ANOVA) to determine whether students identified for reading intervention performed similarly to non-identified peers, and 3) multiple regression analysis to determine factors that contribute to predicting success on a measure of reading achievement. The results of these analyses are discussed in depth below.

DESCRIPTIVE STATISTICAL ANALYSIS

The following section uses statistical analysis to gain further understanding of the reading achievement outcomes related to participation in reading intervention and extended-day programs in one school district. This analysis will specifically seek to answer the following question.

> *Does participation in reading intervention and extended-day programs significantly narrow the gap between students who are identified as at-risk for reading difficulty and students not identified as at-risk for reading difficulty?*

The first set of statistical analyses examined whether or not identified students met the passing standard. From the perspective of campus personnel in an individual school within a district in Texas, it is practically immaterial where a student has been enrolled previously because the Texas accountability system rates schools according to the students who are enrolled for a specified period within one school year inclusive of the time that the reading TAKS is given. For this reason, I believed it was relevant to analyze the intervention and TAKS data from the perspective of a campus principal or teacher who would, at least in part, evaluate the success of the intervention in terms of the outcome for each school year rather than longitudinally over three years.

WITHIN-YEAR RESULTS: DESCRIPTIVE ANALYSIS OF PASSING RATES

Did students who were identified and served tend to meet the passing standard?

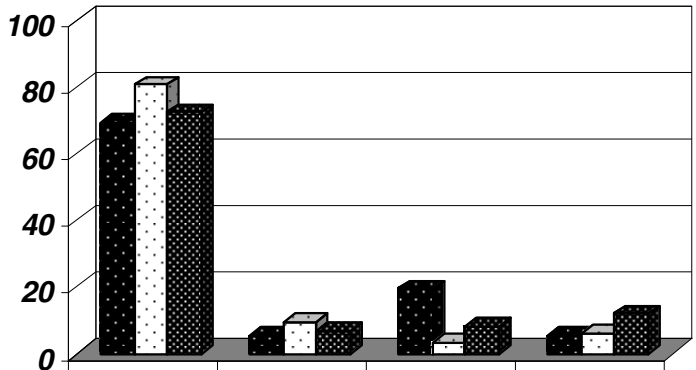
The within-year analysis revealed that third grade students who were identified for reading intervention and who participated in intervention responded well with fewer

students failing the reading TAKS after intervention. Fourth and fifth grade students who were identified for reading intervention were less likely to be successful on the reading TAKS, even after intervention was provided. Two different data sets were used in the analysis. Reading intervention as conducted in this district occurs within a one-year cycle. Students are identified in October and served through various types of reading intervention until the end of the school year. For this reason, the first data set included all students who were enrolled in the school district at the time of identification through the first administration of the reading TAKS within one year. By including all students, I hoped to have a better understanding of the efficacy of reading intervention and extended-day programs in improving student success in reading as measured by the reading TAKS within one school year as implemented within the district.

In each of the three years of the study, the largest group of students were those who were not identified for reading intervention and who passed the reading TAKS. See Table 3 for a summary of student passing rates by identification for reading intervention. The following table demonstrates that more third grade students who were identified for reading intervention (denoted as ID) passed reading TAKS than failed whereas in both fourth and fifth grades, more students identified for reading intervention failed than passed reading TAKS. The passing percentage rate for students not identified for reading intervention (denoted as Not ID) in third grade is lower because a much higher percentage of students are identified for reading intervention in third grade than in fourth and fifth grade. Performance in each of the grade levels is detailed in the following sections.

The qualitative data collection and analysis yielded some insight into why more third grade students who were identified for reading intervention than fourth or fifth grade students who were identified for reading intervention passed the reading TAKS. Briefly, third grade teachers believed that the criteria for identifying third grade students using the TPRI were too broad and resulted in students being identified for reading intervention when they truly did not need intervention. Most of the teachers also reported that there was little to no implementation of the intervention within the school day which could result in fewer students in fourth and fifth grade responding to intervention. Each of these items will be discussed in greater detail in the part two of this chapter. The results, however, preliminarily suggest that the district should reconsider identification criteria for each of the grade levels.

Table 3: Summary of TAKS Performance by Identification for Intervention



	Not ID Pass	Not ID Fail	ID Pass	ID Fail
Third Grade	69.1	5.3	19.4	5.3
Fourth Grade	80.5	9.4	3.5	5.9
Fifth Grade	72.4	6.6	7.9	11.9

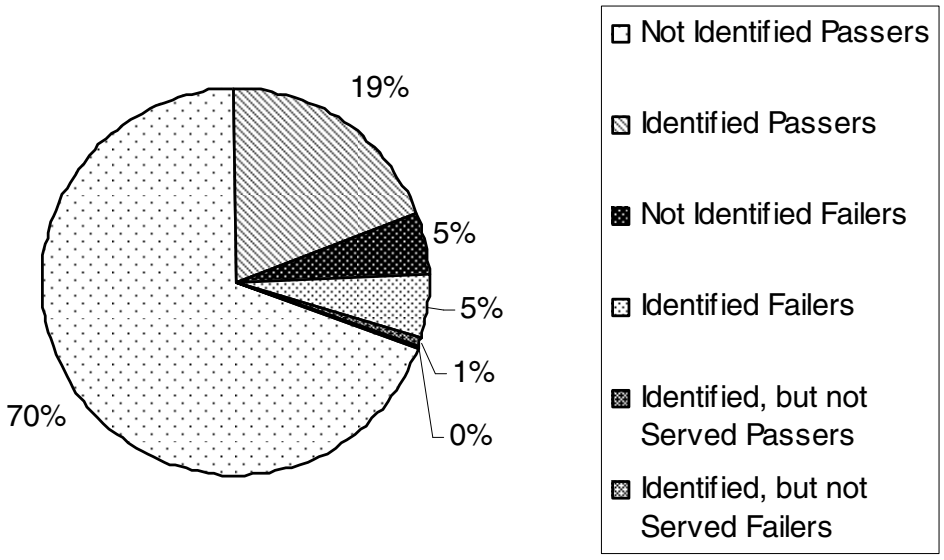
Third Grade Performance

In 2003-2004, 3858 students participated in the first administration of the third grade reading TAKS. It should again be noted that in third grade and fifth grade, students have three opportunities to pass the reading TAKS. Only the first of the three administrations in each year was considered in this study and will hereafter be termed the first administration. Of those third grade students who took the reading TAKS, 954 (24.7%) students had been previously identified for reading intervention in October 2003 using the TPRI and served either during the school day alone or in the extended-day

program in addition to reading intervention during the school day. An additional 35 (<1%) students were identified for reading intervention, but not served.

A summary of passing percentages for the entire population of third grade students for the first administration of third grade reading TAKS in 2004 is available in Table 4. In 2004, 419 (10.9%) students did not pass the first administration of the third grade reading TAKS. Of those students, approximately half were students who had been identified for reading intervention and served (N=206, 49.2%). The other half of students who did not pass the first administration were students who had not been identified (N=203, 48.4%). Ten students (2.4%) who were identified for reading intervention but who were not served did not pass the first administration of the reading TAKS. Of the 954 students who were identified for reading intervention and served during the school day alone or in extended-day reading in addition to the intervention during the school day, 748 students (78.4%) passed the first administration of the reading TAKS. There is some evidence that students who participate in reading intervention tend to pass reading TAKS given that a high percentage of students identified for and served with reading intervention passed the first administration of reading TAKS. Although a relatively low percentage of the total third grade participants failed, half of them had not been identified for reading intervention or served with an intervention program.

Table 4 – 2004 Third Grade Reading TAKS Participants

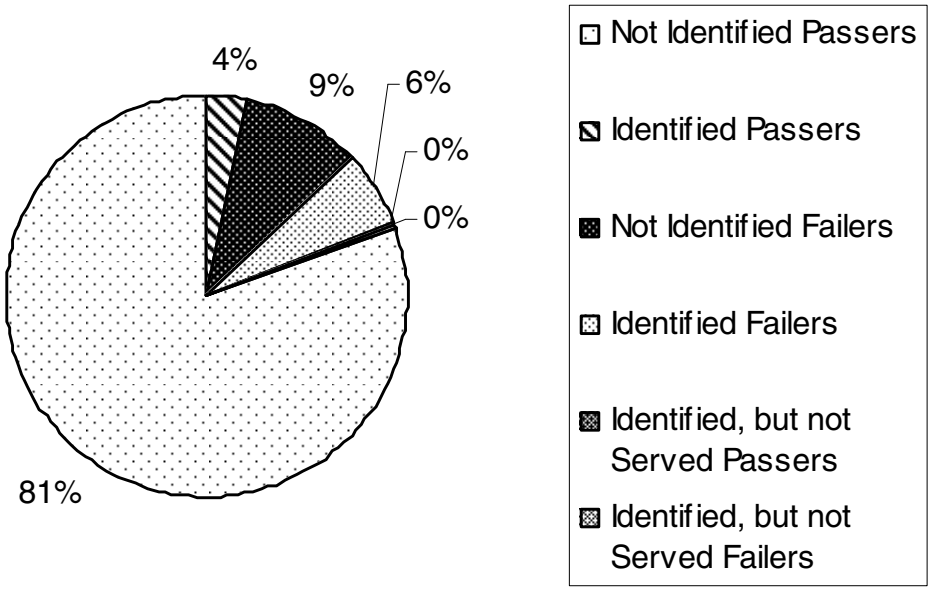


Fourth Grade Performance

In 2004-2005, 3192 students participated in the fourth grade reading TAKS. Of those students, 302 (9.5%) students were identified based on prior year TAKS performance for reading intervention and served through one or both reading intervention programs. In fourth grade, the percentage of students identified for reading intervention plummets to only one in ten students from the much higher one in four students identified in third grade. An additional 22 (<1%) students were identified for reading intervention, but were not served.

A summary of passing percentages for the entire population of fourth grade students on the fourth grade reading TAKS in 2005 is available in Table 5. In 2005, 500 (15.7%) students did not pass the fourth grade reading TAKS. Of those students, 189 (37.8%) were students who had been identified and served with reading intervention. A greater number of non-identified students did not pass the reading TAKS (N=300, 60.0%). Eleven students (2.2%) who were identified for reading intervention but who were not served did not pass the fourth grade reading TAKS. Of the 302 students who were identified for reading intervention and who were served with one or both intervention programs, 113 (37.4%) passed the fourth grade reading TAKS. The percentage of students who passed the fourth grade reading TAKS and who were identified for reading intervention fell around ten percentage points. The number of students who failed but were not identified for reading intervention grew substantially. These two factors contribute evidence that students who are identified for reading intervention in fourth grade reading may still tend to pass the reading TAKS, but not at the rate established in third grade. See Table 5 for a summary of the percentages of the entire fourth grade population who passed or failed the fourth grade reading TAKS in 2005.

Table 5 – 2005 Fourth Grade Reading TAKS Participants



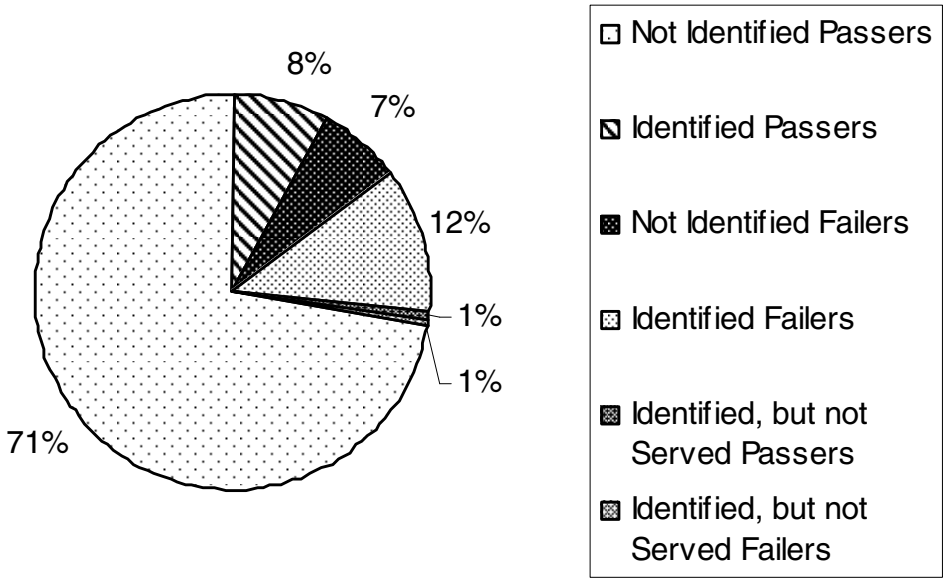
Fifth Grade Performance

In 2005-2006, 3344 students participated in the first administration of the fifth grade reading TAKS. Of those students, 662 (19.8%) were identified for reading intervention and served in either small groups alone or in combination with extended-day reading. After the marked decrease in the number of identified students in fourth grade, the percentage of fifth grade students identified for reading intervention elevates to approximately one in five students, closer to the third grade rate of identification. An

additional 40 (1.2%) students were identified for reading intervention but were not served.

A summary of passing percentages for the entire population of fifth grade students for the first administration of the fifth grade reading TAKS in 2006 is available in Table 6. In 2006, 641 (19.2%) students did not pass the first administration of the fifth grade reading TAKS. Of those students, 398 (62.1%) were students who had been identified and served with reading intervention. In this year, fewer students who failed the first administration had not been identified within the school year (N=221, 34.5%). More students who were served with reading intervention failed than students who were not served with reading intervention. Twenty-two students did not pass the first administration of the reading TAKS of the 40 students who were identified for reading intervention but who were not served accounting for 3.4% of the total number of students who failed the first administration. Of the 662 students who were identified for reading intervention and served with one or both intervention programs, 264 (39.8%) passed the first administration of the fifth grade reading TAKS. The overall passing percentage declined about ten percentage points from third grade as well as the percentage of students identified for reading intervention who passed reading TAKS. In each year, the percentage of students who were identified for intervention but who did not pass reading TAKS increased over students who were identified and did pass, with fifth grade having nearly 60% of identified students fail the first administration of reading TAKS. See Table 6 for a summary of the percentages of the entire fifth grade population who passed or failed the first administration of the fifth grade reading TAKS in 2006.

Table 6 – 2006 Fifth Grade Reading TAKS Participants



LONGITUDINAL RESULTS: FIFTH-GRADE PERFORMANCE

How did students who were identified for reading intervention and served in reading intervention programs perform on fifth grade measures of reading achievement?

Students who were identified for reading intervention at any point during their

third, fourth, or fifth grade year did not perform as well on either measure of reading achievement as students who were never identified. Students who were identified for reading intervention for multiple years did not perform as well as students who were identified for only one year. Students who were identified for reading intervention for three years performed the worst. These findings resulted from a more refined data set than the within-year analysis discussed in the previous section. The second data set included students who were reliably tracked with consistent data points from October 2003 through the first administration of the reading TAKS in fifth grade in February 2006 as described thoroughly in the previous chapter. This data set was used throughout the remaining analyses conducted in this section to gain better understanding of the district's intervention program over time by potentially removing the effects of student mobility.

Between 2003 and 2006, 1008 students were identified for reading intervention in either third, fourth, or fifth grade and served either in small groups during the school day or with a combination of intervention during the school day and extended day. The total number of students identified for reading intervention was separated into three groups according to the number of years of identification and service provision. The largest group, students identified and served for one year, included 732 students accounting for 72.6% of all intervention students. Students who were identified and served for two years included 221 students accounting for 21.9% of all intervention students. The final group included 55 students who were identified and served for all three years of the study and accounted for 5.5% of all intervention students.

Table 7 summarizes performance by years of identification for reading intervention on the first administration of the fifth grade TAKS. I used the first administration of the fifth grade reading TAKS and the national percentile rank of the reading ITBS to evaluate the outcome of intervention over time for students identified for reading intervention. Of the students who were identified and served for one year (N=732), 75.6% (N=554) passed the first administration of the fifth grade reading TAKS. The percentage of first-time passers for the one-year group was much higher than the group that included students who were identified and served for two years (N=221) of which only 36.7% (N=81) passed the first administration. Similarly, of students who were identified and served for three years (N=55), only 34.5% (N=19) passed the first administration of the fifth grade reading TAKS. Students who were identified but who were not served for at least one year (N=35) had a passing percentage rate of 71.4%, similar to students who were identified for only one year. None of the groups of identified students had a passing percentage similar to that of students who were never identified (N=2018) which had the highest percentage of students passing at 95.7% (N=1932).

Table 7 – 2006 Fifth Grade TAKS by Years of Intervention

	N	Mean	SD	% Passing
ID & Served 1 Year	732	32.14	5.43	75.60%
ID & Served 2 Years	221	26.86	5.75	36.70%
ID & Served 3 Years	55	24.31	6.05	34.50%
Not Identified	2018	36.43	4.04	95.70%
ID & NS at least 1 Year	35	31.26	5.15	71.40%

Table 8 demonstrates student performance on the fifth grade reading ITBS by students' years of identification and participation in reading intervention or extended-day reading. Examination of the national percentile rank from the reading ITBS for all students yielded less optimistic results for all of the groups. I used the 40th percentile as an indicator of grade-level performance for determining the relative success of the student groups. Thirty-eight students were missing scores, causing the total numbers to be slightly different from the previous description. Again, students who were identified and served for three years (N=54) had the lowest percentage of students meeting the standard at 14.8% (N=8) of the students at or above the 40th percentile. Of students who were identified and served for two years (N=214), 19.6% of students (N=42) were at or above the 40th percentile. A much higher percentage of students who were identified and served for one year had scores at or above the 40th percentile (45.7%, N=715). Again, students who were identified but not served for at least one year (N=35) had a similar percentage, 40% (N=14), to students who were identified and served for one year. Similar to TAKS performance, students who had never been identified (N=2005) had a much higher percentage of students meeting the standard with 81.6% (N=1636) of students at or above the 40th percentile.

In both the ITBS and TAKS performance, students who were identified and served for three years had the worst performance of all groups. It was beyond the bounds of this study to analyze why these students were unresponsive to intervention. I cannot categorically conclude whether their relative lower performance is due to inadequacies in

the intervention or individual differences, especially given the small size of the group which was less than 2% of the total population. It is clear, however, that the intervention provided was not sufficient for students identified for three years to perform at the standard expected from their age peers.

Table 8 – 2006 Fifth Grade ITBS by Years of Intervention

	N	Mean	SD	% at or above 40th Percentile
ID & Served 1 Year	715	38.77	23.22	45.70%
ID & Served 2 Years	214	24.78	17.36	19.60%
ID & Served 3 Years	54	21.74	19.24	14.80%
Not Identified	2005	64.02	25.02	81.60%
ID & NS at least 1 Year	35	30.66	19.62	40.00%

REPEATED MEASURES ANOVA: NON-SIMILAR PERFORMANCE

Did students identified for reading intervention perform similarly to students who were not identified for reading intervention?

Further statistical analyses using repeated measures ANOVA were conducted to determine whether or not students who were identified for reading intervention performed similarly on the reading TAKS measures of achievement to students who were

not identified for reading intervention. The purpose of this analysis is to further understand the performance levels of students identified for reading intervention. Although identified students' participation in a reading intervention or extended-day reading program may assist them in meeting the passing standard, an achievement gap may persist between identified and non-identified students.

Table 9 displays the means, standard deviations, and number of students for each of the TAKS administrations considered in this study. Repeated measures ANOVA was calculated and provided further evidence that students who were identified for reading intervention and received services did not perform similarly to non-identified students. The three administrations of the reading TAKS from each of the years of the study served as the within-subjects factor. The between-subjects factor was the number of years of intervention. The reading TAKS scores used for the repeated measures ANOVA were transformed to correct for a moderate negative skew. As mentioned previously, all of the following analysis was conducted with transformed scores.

Students who were identified for reading intervention at any time performed worse on the reading TAKS in each of the years of the study in comparison to students who were never identified. The results indicated that there was a significant main effect of years of intervention on mean TAKS scores, $F(1.97, 5952) = 118.06$, $p<.01$. Mauchly's test of sphericity indicated that the assumption of sphericity had been violated (chi-square(2) = 46.7, $p<.01$); therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity (epsilon=.985).

A Bonferroni posthoc test was conducted to determine which groups were statistically significantly different. Posthoc analysis revealed that each of the groups were significantly different from each of the other groups at a significance level of less than .01. Students who had never been identified out-performed all other student groups. Student groups had descending scores according to the number of years of intervention so that the student group who had been identified for one year scored better than students who had been identified for two years. Students who had been identified and served with reading intervention for three years had the worst mean scores in comparison to all other groups. Please recall that the raw scores have been transformed to correct for a moderate negative skew, and a lower mean score represents the best performance.

Table 9 – Descriptive Statistics Using Transformed Scores

		Mean	SD	N
2004 TAKS	ID & served 1 year	2.5959	0.7848	732
	ID & served 2 years	3.2797	0.8252	221
	ID & served 3 years	3.9195	0.746	55
	never identified	1.9671	0.6324	2018
	Total	2.2505	0.8279	3026
2005 TAKS	ID & served 1 year	3.0257	0.8928	732
	ID & served 2 years	4.0265	0.6739	221
	ID & served 3 years	4.357	0.5756	55
	never identified	2.1377	0.7056	2018
	Total	2.5308	0.9747	3026
2006 TAKS	ID & served 1 year	3.0081	0.901	732
	ID & served 2 years	3.8135	0.7777	221
	ID & served 3 years	4.1451	0.7203	55
	never identified	2.1792	0.908	2018

Total	2.5348	1.0509	3026

TEXAS PRIMARY READING INVENTORY SUBSET

This study was designed so that findings from the quantitative and qualitative data analysis processes could inform one another. In the interviews that I conducted, third-grade teachers tended to value the fluency and comprehension scores obtained on the Texas Primary Reading Inventory rather than the overall number of skills still developing. I had collected TPRI data on all students who were identified for reading intervention in the first year of the study. Students who had fluency scores collected (N=674) were coded into four groups according to their word per minute score on the TPRI. Each group included a range of words per minute in increments of thirty so that the lowest group had a score of zero to twenty-nine words per minute. The highest group had a score of more than ninety words per minute which is considered developed fluency on the TPRI. Students who had comprehension scores collected (N=674) were coded into two groups. One group was students who were "still developing" on the comprehension portion of the TPRI and the other group had a score that was considered developed according to TPRI guidelines. I used a one-way ANOVA to determine whether there was a statistically significant main effect for fluency scores or for comprehension scores within one year; then I conducted analyses using repeated measures ANOVA to determine whether there was a main effect across the three years of the study.

Fluency Findings

Students who had the highest level of word-per-minute fluency had higher scores on third grade reading TAKS. There was a significant main effect of fluency on the third grade reading TAKS, $F(3, 670)=9.475$, $p<.01$. Using a Bonferroni posthoc analysis, each of the groups differed significantly from the others with the exception of one pairing. Mean scores were not significantly different for students who had a fluency of 0-29 words per minute ($M=3.14$, $SD=1.13$) in comparison to students who had a fluency of 30-59 words per minute ($M=2.76$, $SD=.85$).

Table 10 displays reading TAKS mean scores, standard deviations, and number of students per fluency group. There was also a significant main effect of fluency on the repeated measures ANOVA using TAKS as a within-subjects factor and fluency as a between-subjects factor, $F(1.97, 1321)=36.4$, $p<.01$. Mauchly's test of sphericity indicated that the assumption of sphericity had again been violated (chi-square(2) = 9.3, $p=.01$); therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($epsilon=.986$). As in the third grade reading TAKS only analysis, each of the groups significantly differed from each of the other groups with the exception of one pairing. The Bonferroni posthoc analysis indicated that mean scores for students with a fluency score of 0-29 words per minute did not significantly differ from students with a fluency score of 30-59 words per minute.

The one-way ANOVA and repeated measures ANOVA analysis suggest that students who score below 60 words per minute on the fluency portion of the TPRI

perform similarly on TAKS reading tests. Additionally, it provides further evidence that higher word per minute fluency scores are associated with better performance on TAKS.

Table 10 – Descriptive Statistics of Repeated Measures Fluency Analysis

		Mean	SD	N
2004 TAKS	0-29 wpm fluency	3.14	1.13	30
	30-59 wpm fluency	2.76	0.85	325
	60-89 wpm fluency	2.57	0.84	228
	>90 wpm fluency	2.35	0.79	91
	Total	2.66	0.87	674
2005 TAKS	0-29 wpm fluency	3.24	0.96	30
	30-59 wpm fluency	3.16	0.95	325
	60-89 wpm fluency	2.95	0.87	228
	>90 wpm fluency	2.68	0.91	91
	Total	3.03	0.93	674
2006 TAKS	0-29 wpm fluency	3.53	1.11	30
	30-59 wpm fluency	3.23	0.93	325
	60-89 wpm fluency	2.93	0.82	228
	>90 wpm fluency	2.65	1.01	91
	Total	3.06	0.95	674

Comprehension Findings

Students who were in the developed range on the end-of-year second grade TPRI performed better on the third grade reading TAKS than students who were still developing on the comprehension task on the TPRI. Students are considered developed on the TPRI if they answer three of five comprehension questions correctly. There was a significant main effect for comprehension on the third grade reading TAKS, $F(1, 645)=16.07$, $p<.01$. No posthoc analysis was conducted since there were fewer than three groups. The developed group had a lower mean score ($M=2.53$, $SD=.83$) indicating better test performance than the still developing group ($M=2.80$, $SD=.88$).

Students who were developed on the comprehension portion of the TPRI scored significantly better over three years than students who were still developing in analysis over time using the repeated measures ANOVA. Since Mauchly's test of sphericity indicated that the assumption of sphericity had again been violated (chi-square(2) = 7.5, $p=.024$), the degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity (epsilon=.989). There was also a significant main effect of comprehension on the repeated measures ANOVA using TAKS as a within-subjects factor and comprehension as a between-subjects factor, $F(1.97, 1275)=96.8$, $p<.01$.

MULTIPLE REGRESSION ANALYSIS

Summary of Methodology

I initially considered several predictor variables to develop the multiple regression model that included student's raw score on the third and fourth grade reading TAKS, reading intervention identification in third, fourth, and fifth grades, prior or current year status as a student who is limited English proficient (LEP), student ethnicity, and national percentile rank on the reading portion of the Iowa Test of Basic Skills (ITBS). The final regression model did not include all of these predictor variables as will be discussed in the following sections. The dependent variable was the raw score for the fifth grade administration of the reading TAKS.

In the interviews that I conducted with classroom teachers, when asked what they would like to change about the reading intervention program, they frequently referenced the identification process for the Accelerated Math Instruction (AMI) program that is similar to the reading intervention program. The national percentile rank on ITBS is one of the general criteria that may be used to identify students for AMI. Students who have a national percentile rank of less that forty may be considered to be below grade level, so I converted the reading ITBS score to a categorical variable and dummy-coded the variable into two groups; students with a score above forty and students with a score below forty. Student ethnicity, LEP participation, and reading intervention program participation were also dummy-coded for inclusion in the regression model.

The sample for regression analysis was the same sample used for the repeated measures ANOVA analysis. Students were included who had TAKS reading scores for all three years of the study in the district which resulted in a sample size of 3061.

Inclusion of the ITBS score resulted in a slightly smaller sample size so that the final sample used for analysis included 3023 participants. The thirty-eight students who were omitted from the sample were either absent on the day of the reading ITBS administration or failed to complete enough of the test to receive a score.

Multiple regression analyses were run in which the change in R square was evaluated to determine the amount of variance that predictor variables accounted for in the model. Since the predictor variables were of theoretical interest to the study, I used the hierarchical or blockwise entry method for including predictor variables to determine which combination best predicted the dependent variable. Statistical significance was determined at the .05 level.

Assumptions

The assumptions for ordinary least squares multiple regression were tested by examination of the plots of the residuals. The regression standardized predicted values plotted against the regression standardized residuals appeared random indicating that the assumption of homoscedasticity was met. The histogram of the standardized residuals appeared normal indicating that the assumption of normality of errors was met.

The collinearity matrix (see Appendix D) and variance inflation factors (VIF) were evaluated closely because a high degree of multicollinearity was initially anticipated. The fourth grade administration of the reading TAKS and the fifth grade administration of the reading TAKS (the dependent variable) were moderately correlated ($r=.700$) at a significance level of $p<.005$. The third grade reading TAKS score was also moderately correlated with the fourth grade reading TAKS ($r=.652$) and the dependent

variable (r=.642). The ITBS performance variable was moderately correlated with each of the TAKS administrations, but each of the values was less than .515 with a significance level of p<.005. Since none of the Pearson correlation values were higher than .80 and none of the variables had perfect collinearity, multicollinearity was not judged to be problematic for this model. Each of the VIF values was above four and the tolerance levels were all above .2. These values further affirm that multicollinearity is not a serious threat to the validity of the model (Garson, December 8, 2006). The model appeared to meet the assumptions of multiple regression and should be accurate for the sample and generalizable to the population.

Descriptive Statistics

Table 11 provides descriptive statistical information about performance on the measures of reading achievement.

Table 11 – Descriptive Statistics of Standardized Measures of Reading Achievement

Measure	*N*	*Min*	*Max*	*Mean*	*SD*
TAKS – 3rd	3023	7	36*	31.25	4.365
TAKS – 4th	3023	11	40*	33.67	5.510
TAKS – 5th	3023	10	42*	34.48	5.551

*This is the highest score possible on this version

Table 12 provides a summary of the descriptive statistics about the sample.

Table 12 – Descriptive Statistics of Categorical Variables

	Variable	*N*	*M 2004*	*M 2005*	*M 2006*
3rd Grade	Identified, Not Served	26	26.15	29.35	30.65
	Reading Intervention (RI)	94	30.3	32.12	32.81
	RI and Extended Day	601	29.02	30.73	31.46
	Not Identified	2302	31.92	34.54	35.39
4th Grade	Identified, Not Served	16	27.06	28.44	30.31
	Reading Intervention (RI)	42	25.1	26.12	27.43
	RI and Extended Day	129	21.72	24.57	26.36
	Not Identified	2836	31.79	34.22	34.98
5th Grade	Identified, Not Served	21	27.24	27.05	29.05
	Reading Intervention (RI)	52	26.88	24.17	25.98
	RI and Extended Day	387	25.87	23.73	27.37
	Not Identified	2563	32.18	35.41	35.78
ITBS	Higher than 40th Percentile	2027	32.71	35.66	36.48
	Lower than 40th Percentile	996	28.27	29.62	30.42
Ethnicity	Native American	15	32.47	34.07	35.93
	Asian	240	31.43	35.08	35.36

	African American	441	31.29	33.39	33.94
	Hispanic	1224	29.77	31.89	32.72
	White	1103	32.81	35.43	36.45
LEP	Current or Prior Participant	1030	29.15	31.52	32.28
	Never a Participant	1993	32.33	34.77	35.62

Regression Model

Table 13 demonstrates the regression model summary. The final regression model included five predictor variables: 1) raw score from third grade reading TAKS, 2) raw score from fourth grade reading TAKS, 3) intervention or extended-day identification and participation in third grade, 4) intervention or extended-day identification and participation in fifth grade, 5) reading ITBS less or greater than 40th percentile, and 6) ethnicity. The overall multiple regression was statistically significant (R-square=.574, F(13,53424)=311, p<.001), and these variables accounted for 57% of the variance in the raw scores on the first administration of the fifth grade reading TAKS.

The similarity between R-Square and adjusted R-Square shows little shrinkage indicating that model should generalize well to the population. In most cases, the change between R-square and the adjusted R-square in this model is .001 or 1% difference.

Table 13 – Model Summary

Model	R Square	Adjusted R Square	R Square Change	Variables

1	.550	.549	.550*	3rd grade Raw Score + 4th grade Raw score
2	.554	.553	.004*	+ 3rd grade Intervention Participation
3	.557	.556	.003*	+ 5th grade Intervention Participation
4	.571	.570	.014*	+ ITBS greater or less than 40th percentile
5	.574	.572	.003*	+ Ethnicity

*Significant at <.001

Students' LEP status, a theoretically important construct, is notably missing from the final regression model. When the ethnicity variable was included in the model before the LEP variable, then the amount of variance accounted for did not change. Intervention or extended-day program identification and participation in fourth grade is also missing from the final regression model. There was a small change in R-square with the inclusion of the fourth grade intervention variable, but it was not statistically significant.

The following equation includes standardized coefficients since all of the variables were not originally standardized.

Y = 9.873 + .274(TAKS3) + .392(TAKS4) + .002(NS3) + -.014(RI3) + -.053(RI+ED3) + -.013(NS5) + -.056(RI5) + -.027 (RI+ED5) + .133(ITBS>40) + -.017(Asian) + -.048(AfAm) + -.049(Hisp)

SUMMARY OF REGRESSION ANALYSIS

The regression analysis yielded a statistically significant equation that accounted for 57% of the variance in the outcome variable when five predictor variables were included. These results suggest that identification and participation in reading intervention and extended-day reading influence performance on the fifth grade reading TAKS when factors such as prior TAKS performance, ethnicity, and performance on the reading portion of ITBS in fifth grade are considered.

SUMMARY OF QUANTITATIVE ANALYSES

Statistical analyses were conducted to determine whether or not participation in reading intervention or extended-day reading narrows the achievement gap between students who are identified as at-risk for reading difficulty and students who are not identified as at-risk for reading difficulty. In terms of practical significance within a single year, more third grade students are identified than in other grade levels and the district has greater success in terms of students who are identified for reading intervention or extended-day reading passing the first administration of the reading TAKS. Fourth and fifth grade students do not fare as well based on the fact that more students who are identified for reading intervention in fourth or fifth grade fail the reading TAKS than pass. About as many students who were not identified for reading intervention failed the first administration of reading TAKS who were identified for reading intervention for each of the three years where the data set was not winnowed by longitudinal criteria. These findings suggest that the process for identifying students for

reading intervention may need adjustment to include more students, especially in fourth grade where the largest number of students failed the reading TAKS who were not identified for reading intervention. Additionally, the success of the third grade students' on reading TAKS warrants further study to be replicated in other grade levels to determine whether the effects are due to better implementation of intervention or if they identification process truly does result in the students being inappropriately identified.

When we examine practical significance longitudinally, it is evident that students who are identified for reading intervention even one year tend to score much lower on fifth grade reading TAKS and fifth grade reading ITBS. Even lower performance is associated with increased years of identification for intervention. This could be interpreted as affirmation that the achievement gap between identified and non-identified students is clear and present. We should also note that students who were identified for only one year still had a mean score on reading TAKS that was above the cut score for meeting the standard that indicates grade level performance in reading for the state of Texas.

Findings from the statistical analysis provided further evidence that the number of years of identification for intervention is a main effect on fifth grade reading TAKS performance. The multiple regression analysis demonstrated that prior reading TAKS performance, years of intervention, ethnicity, and ITBS scores contributed to predicting fifth grade reading TAKS performance. These factors may be considered important to the process for identifying students for intervention. Also, since fluency scores and comprehension scores on the second grade TPRI were also demonstrated to be main

effects on third grade reading TAKS performance, perhaps on-going assessment of these reading components could be incorporated into criteria for identifying students for intervention in all three grades.

In sum, each portion of the data analysis in the chapter combine to demonstrate that students who are identified for reading intervention do not perform similarly to their non-identified peers. Students who are identified for reading intervention and extended-day reading for one year, tend to meet the standards set by the state and have moderate success on measures of reading achievement. Students who are identified for reading intervention for multiple years have much less success than their age peers. Given the relatively small percentage of students who do not perform at grade level standard with intervention, the district should be seen as successful in its efforts to remediate students with the acknowledgement that there is still work to be done.

Section II – Qualitative Data Analysis

The methods of qualitative inquiry naturally match research questions that seek to understand the characteristics of intervention. The second research question of this dissertation was:

> *What are the features of reading intervention and extended-day reading as implemented in various schools in a Texas school district?*

Through interviews of teachers and principals at four elementary schools in this district, I have tried to reconstruct the challenges that campus-based personnel have faced in implementing reading intervention and extended-day reading as well as the solutions they have developed to meet their needs.

As I concluded my interview with Lindsay Adams (personal communication, November 20, 2006), a teacher at Kodiak Elementary, she asked me, "Are you able to change anything or are you just in research?" I responded that I hoped this work is able to make change that improves situations for our students and schools. Through my interview with Lindsay, she proposed several changes, most notably regarding the identification process and the design for intervention due to her experiences within her school. The purpose of this case study is to provide a framework for understanding the complex interactions of teachers, administrators, and local and state policies as a program is implemented on specific campuses, like Lindsay's school.

KODIAK ELEMENTARY

Kodiak Elementary is a small school locally known for its success in the state of Texas' educational accountability system, situated in an urban neighborhood adjacent to a city park. When walking up to the school, students and visitors are greeted by several banners that indicate the many years that Kodiak has been a recognized or exemplary campus (see Appendix E for a summary of the Texas accountability rating system

including gold performance awards). During the first year of this study, 2003-2004, Kodiak was rated Academically Acceptable according to the Texas accountability system although the reading passing percentage rate for all TAKS test-takers was in the Recognized range. Since the state accountability system assigns ratings to elementary schools based on the lowest area of performance in reading, math, writing, and science, many schools, like Kodiak, have higher performance ratings in one area than the overall rating assigned to the school. In the following year, the campus was rated Recognized and earned gold performance awards for commended performance on Reading/ELA, mathematics, and science. They additionally earned recognition for comparable improvement in Reading/ELA. In 2005-2006, Kodiak maintained the Recognized rating and again earned gold performance awards for commended performance on Reading/ELA, mathematics, and science.

In 2003-2004, Kodiak's passing percentage rate on TAKS in each of the subject areas exceeded the passing percentage rate for the campus group by at least eight percentage points, indicating that Kodiak has many more students pass than schools of comparable size and demographics in the state. Kodiak continued to have significantly higher passing percentages than the campus group on each of the tests during the next year. Kodiak had passing percentages similar to its campus group in 2005-2006.

The percentage of third grade students who required accelerated reading instruction varied widely from year to year. Eighteen percent of third grade students required accelerated reading instruction in 2003-2004. The percentage of third grade students requiring accelerated reading instruction dropped to 9% the following year and

rose again to 13% in 2005-2006. Third grade students who require accelerated reading instruction are those students who fail the first of three opportunities to pass the reading TAKS and are required to receive accelerated instruction in preparation for the second administration.

Of the 468 students enrolled in 2003-2004, over 70% of the students were Hispanic and about 78% of the students were economically disadvantaged. While 67% of the students were limited English proficient, only 60% were enrolled in a bilingual or ESL program. There were 31 professional staff members employed at Kodiak in 2003-2004 and around 45% of them have between eleven and twenty years of experience. Each of these indicators remained similar over the following two school years in which the study took place.

As I waited in the office before each of the interviews, students and parents entered the office frequently and there were fluid conversational exchanges in Spanish and English. The office personnel greeted parents in Spanish and students spoke in both languages.

The principal, Brenda Masters, has been an administrator for eleven years, five of those at Kodiak. Outside the door to her office hangs a decoration that says "Bear Hugs Given Here" and her friendly and open demeanor affirm the truth of that statement. A twenty-year educator, Mrs. Masters took a turn toward teaching as a pre-law student. Due to her high grades in high school, she was approached by university officials who were beginning a five-year program in which students could earn a bachelor's and master's degree simultaneously. "It was the first time anybody made it sound like, in

teaching, if you were intelligent it was something you'd do well. I've never looked back" (B. Masters, personal communication, November 10, 2006).

Although Mrs. Masters reported that she enjoys getting up in the morning and coming to school, recent increases in monitoring and micro-managing by central office administrators have impacted the enjoyment she feels in some aspects of her job because they have contradicted her leadership style which she characterized as "trusting." She has felt discomfort in enacting the didactic and top-down leadership styles imposed upon her and felt that it affected the level of comfort in the school climate by increasing the teachers' stress level in the building.

At Kodiak, ELA blocks (including Writing) average around 2- 2 1/2 hours in length for third and fourth grade classes because the classes are modified self-contained meaning that all the teachers on a grade level teach more than one subject to more than one classroom of students. At Kodiak, teachers trade students in an effort to advance integration for English language learners. Beginning in third grade, there is no longer a homeroom section of bilingual students. Bilingual students are dispersed among the three sections for all subjects except for Reading/ELA where bilingual students return to the bilingual teacher's class to meet the requirements of the law. Fifth grade, in this school, is departmentalized even further in a manner in which each of the three teachers on the team teaches Writing, but only one teacher teaches Reading. In each of the grades, there are three sections, two regular education classes and one Spanish/English bilingual class, but "we just treat them all as general ed" (B. Masters, personal communication,

November 10, 2006 In each of the three grade levels, the schedule includes an enrichment rotation time where tutoring and remediation is provided.

I interviewed two third grade teachers at Kodiak, Shelly Mullins and Lindsay Adams. Both teachers grew up in the district and felt a strong pull to return to the district where they had attended school. Shelly Mullins has taught for sixteen years total, of which eleven years have been in third grade and five years in fourth grade. The school uses a model that Shelly called "advanced integration" in which she teaches bilingual students mixed with monolingual students except during the time that Reading and ELA are taught at which time Shelly teaches only in English to monolingual students. Another teacher on her team, Lindsay Adams, teaches Reading to the bilingual students in English and Spanish. All of Shelly's teaching experience has been in the district with eight years at Kodiak and the remaining years at another campus. There are two other teachers on the third grade team, one of whom is Lindsay, the other teacher I interviewed at Kodiak.

Shelly and I met one morning during her conference period. On my first visit to Kodiak to interview Mrs. Masters, I had not had the opportunity to see inside the classrooms, but Shelly retrieved me from the office and we spoke in her classroom. It was a cheerful but small space, with levered windows all along one wall. While Shelly was talking about students who do not meet the district's identification criteria, a male student returned to the classroom with some homework that he had just finished. He smiled sheepishly at her and she took the opportunity to remind him of the merits of completing homework *at home*. When he left the room, she turned to me and said, "That

is exactly the kid I'm talking about. He needs extra help but doesn't get on the list" (S. Mullins, personal communication, November 16, 2006).

Lindsay Adams is a third grade bilingual teacher in her seventh year of teaching. She attended Clover schools and always wanted to come back to Clover as a teacher. She succeeded in her goal and has spent her entire career at Kodiak Elementary. When Lindsay was a high school student, she volunteered in an after-school tutoring program for bilingual students and really liked working with them. It was a natural fit for her.

Lindsay and I also met during her morning conference period in her classroom across the hall from Shelly. Lindsay had the most questions for me of any of the interviewees and briefly interviewed me before we began. She was eager to know what I was going to do with the information that I gathered and was keen to understand how I might make change for her classroom. We were interrupted twice; once by the nurse, looking for a student who needed a vision screening, and once by the literacy specialist looking for a student to tutor. Each time, she didn't miss a beat in the rhythm of her conversation and picked up her sentence exactly where she had left off.

Lindsay's homeroom has monolingual and bilingual students. She trades students with the other two monolingual teachers for the Reading and Language Arts portions of the day. Although the students in her reading class speak Spanish, she conducts most of her instruction in English and prefers to use Spanish only for clarification. If there are students who struggle or who need more help, she reverts to Spanish for instruction for those students only. She explained that she views her position as a third grade teacher as having a responsibility to move students into English. The choice of language for

instruction is one way that Lindsay exerts her autonomy and power within the walls of her classroom.

STONE ELEMENTARY

Stone Elementary is in an older section of the city, surrounded by single-family homes reminiscent of 1950's ranch-style houses. I arrived early for an interview one afternoon around 2:50, school dismissal time. Cars crammed the streets and even more mothers streamed in, walking to meet their students at the front of the school. Parents, children, and teachers milled around the expansive front lawn. Here, also, Spanish and English were spoken with equal frequency.

Stone was rated by TEA as a Recognized campus in the 2003-2004 school year. The following year, the campus rating fell one category to Academically Acceptable although they did earn a gold performance award for comparable improvement in Reading/ELA and mathematics. In 2005-2006, Stone was again rated Recognized with gold performance awards in commended on Reading/ELA and mathematics, and comparable improvement in Reading/ELA and math (see Appendix E for more information about ratings and gold awards).

Stone performed similarly to its campus group with the exception of science in which Stone had 12 percentage points higher than the campus group. In the following

year, Stone continued to perform similarly to the campus group with the exception of science which was 18 percentage points below schools of comparable size and demographics. Stone is a small school, and with only one grade level taking the science TAKS, jumps in performance like the one described are highly responsive to changes in teaching staff or the needs of the students. In the final year of the study, Stone performed similarly to its campus group in all subject areas.

During all three years of the study, Stone had a fairly high percentage of third grade students who required accelerated reading instruction. In 2003-2004, 29% of third graders at Stone required accelerated instruction. The following year, only 20% of third graders required accelerated instruction. The percentage of third graders requiring accelerated instruction continued to fall to 16% in 2005-2006.

Of the 414 students enrolled in 2003-2004, about 67% were Hispanic students and about 60% were economically disadvantaged. In 2004-2005, there were slight elevations in the percentages of Hispanic students and economically disadvantaged students, and the percentages remained similar for the 2005-2006 school year. Approximately 50% of the students were limited English proficient (LEP), but only 39% were enrolled in a bilingual or ESL program. By 2004-2005, about 55% of the students were LEP, but the percentage of students enrolled in a bilingual or ESL program had risen to 49%. In 2005-2006, the percentage of LEP students fell to 41% with 37% of all students enrolled in a bilingual or ESL program.

Overall, the teachers at Stone are experienced teachers. In 2003-2004, of the 31 teachers, 36% had only 1-5 years of experience and 58% had more than 6 years of

experience. These percentages remained similar over the following two years of the study.

I initially e-mailed Evelyn Morrow, the principal at Stone Elementary, to ask her to participate in an interview to share how reading intervention and extended-day reading programs work in her school and she did not respond for several days before she returned my e-mail and asked that I call her. When I called, she indicated that she had considered delegating this task to someone else before she decided that she would be the most knowledgeable person in her building. At the time of the interview, she at first demurred as the person who knew the most about extended-day reading, giving credit to her assistant principal as the person who actually runs the details of the extended-day program. But when I explained that I wanted to know about the instructional and programmatic decision-making behind the details of intervention and how it was conducted at her campus, she was quick to indicate that she was actually the person who should be interviewed. Her verbalized reticence quickly gave way to an astonishingly honest exchange in the interview. Mrs. Morrow frankly described her school, its challenges, and the solutions they have crafted because, as she wants her teachers to internalize, "No Child Left Behind has to be part of your fiber or you can't teach in a school like this" (E. Morrow, personal communication, November 21, 2006).

Mrs. Morrow and I met in her office and were both shocked to discover that we had talked for an hour-and-a-half without interruption. We both attributed the time to the fact that we met on the day before the Thanksgiving holiday, a preternaturally quiet day in elementary schools as students and teachers alike do not want to make waves before

the 1:15 pm early dismissal time. A couple of years ago, Mrs. Morrow had converted the conference room and counselor's office into her office resulting in her office having open access to the conference room. Her updated office was in contrast to the polished stone interior walls of the school's hallways.

Evelyn Morrow had been working in the Catholic school system as a principal and was seriously considering changing professions when she applied to this district where her daughter was a student at the time. She read in the newspaper that Clover was, at that time, gaining students from a socio-economic background that was similar to students with whom she had worked when she was a Catholic school principal in an impoverished, urban area. That drove her to apply for a position in Clover where she was hired as an assistant principal at a middle school where she stayed for two years and was "running a lot with burning wastebaskets and thought at forty-something, there must be something better" (E. Morrow, personal communication, November 21, 2006). At that point, she wrote to the superintendent to request a move to an elementary school. She was moved to an assistant principal position in an elementary school and then to the principal position at Stone where she has been for the last nine years. "I just feel what we do for a limited-English proficient, low socio-economic [students], is incredible. We see miracles" (E. Morrow, personal communication, November 21, 2006).

I met with one of the teachers at Stone, Lisa West, on a Friday afternoon. It was somewhat difficult to schedule time with her because she teaches Saturday school at Stone, most days after school, and works at Sylvan Learning Center. She is in her second year of teaching third grade. Prior to her current position, she taught fifth grade and

kindergarten for a total of eleven years. Since she has been at the same school for so long, she was able to teach all five of her kindergarten classes again in fifth grade. Before joining the district, she taught in Catholic schools, like her principal.

We met in Lisa's classroom on a desolate Friday afternoon. The assistant principal had let me in the building and commented that I was lucky she was there, or no one would have heard me knocking at the main door. Lisa was very open and her staccato conversation was difficult to keep focused at times. She frequently darted around the room to grab an example of what she was talking about so that the end result was a pile of books and papers on the small table where we sat.

At several points during our conversation, Lisa would clarify her standard for what she accepted from her students and then tack on the phrase, "I'm just picky about that" (L. West, personal communication, December 1, 2006). Her "pickiness" most frequently applied to specific practices of student work such as always requiring students to answer questions in complete sentences or using the words from a question in the answer that the students give. Our conversation was peppered with Lisa explicitly mentioning the limitations and constraints that she feels in contrast to the ways that she wants to teach reading and how she believes reading should be taught. She emphasized that she really wanted to teach reading through social studies to the extent that she would like to put the basal aside and use the Social Studies textbook as a main reading text. She spoke at length about the benefits of social studies and how much she wants to teach social studies before mentioning that their school schedule only allows for social studies to be taught on Fridays. Lisa felt like she has had to throw out parts of the curriculum in

order to prepare students for the "endurance" of the reading TAKS test and freely expressed her dissatisfaction about what she feels she must do.

Jane Michaels was the second teacher that I interviewed at Stone. I had seen Jane each of the other times that I had visited Stone and I remembered her because of her warm greeting and broad smile. When Jane and I officially met for the first time, she explained as we walked down the long hall to her classroom that she currently teaches fourth grade but was not teaching reading at the time of our interview. She expressed concern that she wouldn't be able to help me and that she was surprised when Mrs. Morrow had asked her to participate. Since Jane was the fourth grade reading teacher during the first few years that reading intervention was required in its current iteration in the district, I decided to proceed with the interview to gain her perspective on the initial implementation of reading intervention in the district and she was glad to cooperate.

Jane is an extraordinarily tall woman, and as she folded herself into a student's desk, she described a complicated system in which she trades students with the other two fourth grade teachers for portions of the day, but her team changes who is teaching each subject every year depending on who is on the grade level team. Jane was a second grade teacher for nine years in another north Texas community before coming to Stone where she has been a fourth grade teacher for the last six years. During our interview, she focused her comments about reading intervention and extended-day reading on the two years that she taught fourth grade reading.

VERNE ELEMENTARY

Verne Elementary is located in a neighborhood surrounded by modest, middle-income, single-family homes. As you walk into the large foyer, you immediately notice the hot-air balloons that are brightly painted on the vaulted ceiling. The office area was decorated with seasonal, folksy items that gave it a warm feel, but unlike the other two schools, I did not see any parents. The children I saw in the hallways wore standardized dress of navy pants and white shirts and walked quietly in lines with their hands clasped behind their backs.

In 2003-2004, Verne Elementary was rated by TEA as an Academically Acceptable campus with gold performance acknowledgements for attendance and commended on writing. The following year, Verne earned a Recognized rating as well as gold performance acknowledgements for attendance and commended performance on science. Although Verne fell one category to Academically Acceptable again in 2005-2006, the school still earned a gold performance award for attendance. Verne Elementary performed similarly to its campus group in 2003-2004 and continued to do so throughout the three years of the study with the exception of science in 2005-2006 where Verne was 12 percentage points below the campus group.

The population at Verne Elementary was fairly stable between 2003 and 2006. Only 4% of third grade students required accelerated reading instruction in the first year of this study and that percentage remained similar over the next two years. Of the 705 students enrolled in 2003-2003, 46% were white students, 29% were Hispanic students,

and 32% of the students were economically disadvantaged. About 23% of the students were LEP and 19% of the total population was enrolled in a bilingual or ESL program in 2003-2004. These percentages remained similar over the next two years as well.

Verne employed 42 teachers in 2003-2004, none of whom were first year teachers. Thirty-one percent of the teachers had over twenty years of experience with the remaining teachers between one and twenty years of experience. Only one first-year teacher joined the faculty for 2004-2005. Three more first-year teachers joined Verne in the following year, but the faculty still tended to have several years of experience.

The principal, Sylvia Hunter, is in her twenty-eighth year in education, all in Clover schools. At the time of our interview, she was in her fourteenth year as a campus-based administrator. Mrs. Hunter opened Verne Elementary and has been there for her entire career as a principal. Prior to her tenure at Verne, she was in the classroom for thirteen years in first grade and one year in fourth grade. In her interview she was clear that "We've had a lot of success with reading. That has been the focus of this building since I came here because reading is my passion" (S. Hunter, personal communication, November 20, 2006).

When I had contacted Mrs. Hunter about meeting with her and two teachers at her school, she cheerily responded for me to "come on over" and that she'd have everything set up for me. Mrs. Hunter and I met in her office at 1:00 and she had arranged for two teachers to come to her office during their respective conference periods, so we conducted the interviews with Mrs. Hunter bustling in and out of her office. I was

concerned that the setting would inhibit the teachers' responses, but they both expressed their challenges without excessive editing for Mrs. Hunter's sake.

Elizabeth Newton was in her second year of teaching fourth grade at the time of our interview, this year in a self-contained class, meaning that she teaches all subjects to one group of students. All five years of her teaching experience have been at Verne Elementary, three of those years as a fifth grade reading teacher. She indicated that she likes the older kids because "they know what to do" (E. Newton, personal communication, November 20, 2006).

Mandy Howard taught fourth grade last year during her first year of teaching and is currently a fifth grade teacher. She looped up with her students although her class was self-contained last year and this year she is teaching Reading only. She is responsible for teaching Reading to the entire grade level, to which she sarcastically added, "No pressure there." She earned her bachelor's degree in English and went through an alternative certification program to become a teacher. At first she was not sure what she wanted to do, but after taking several substitute positions she decided to pursue her teacher certification.

ALL-STAR ELEMENTARY

Locally, All-Star Elementary is known for its location which is close to the golf course and surrounded by mid- to upper-level, single-family homes. It is a relatively new

facility with broad hallways and substantial natural lighting. All-Star Elementary was rated Recognized in 2003-2004 and earned gold performance acknowledgements for attendance, commended performance on Reading/ELA, commended performance on Writing, and commended performance on Science. In the following year, All-Star continued to be rated as Recognized and earned gold performance acknowledgements for attendance, and commended performance on math and science. In the final year of the study, All-Star fell one category to Academically Acceptable, but still earned gold performance acknowledgements for attendance, commended performance on writing, and commended performance on math.

All-Star performs similarly to its campus group in all subject areas in 2003-2004, but had much higher percentages of students passing science compared to the campus group in 2004-2005. In the final year of the study, All-Star's performance was once again similar to its campus groups in all subject areas.

Very few third grade students at All-Star require accelerated instruction. Only 3% of the third grade students at All-Star required accelerated instruction in 2003-2004. The percentage of third grade students requiring accelerated instruction increased to 6% in 2004-2005 and remained at 6% for 2005-2006.

Of the 744 students enrolled at All-Star in 2003-2004, 58% were white, 26% were Hispanic, and 23% of the total population was economically disadvantaged. About 20% of the students at All-Star were LEP and about the same percentage of students (19%) was enrolled in a bilingual or ESL program. The percentages for these demographics remained stable throughout the following two years.

Of the 44 teachers employed at All-Star in 2003-2004, most (38%) had between six and ten years of experience. The following year, the teachers were more evenly distributed in terms of experience and remained stable for 2005-2006.

All-Star Elementary's principal, Warren Franks, is in his thirty-eighth year as an educator in a variety of positions including teacher, assistant principal, principal, and deputy superintendent with a brief leave of absence to be a consultant for schools who were implementing technology. He resigned from the technology consultant position to interview for a position as a principal in Texas. With only six years as a classroom teacher, most of his experience has been as a campus-based administrator. Mr. Franks wrinkled his face like he had eaten a sour lemon when he recalled his experience as a deputy superintendent and reiterated that he really loves being a principal the most.

I did not have the opportunity to visit the classrooms of the teachers at All-Star Elementary either. Mr. Franks had reserved the conference room for our interview, so we were remote from the office area and separated from classrooms as well. He wanted to use the conference room so that we would not be interrupted.

Bailey Peters, the first All-Star teacher I interviewed, was a diagnostician for the district at the time of our interview. Bailey worked at All-Star as a third grade bilingual teacher her first year of teaching (which she said was a joke because she does not speak Spanish) and stayed there for two more years before moving to Boston for a brief period where she worked at a private school for students with severe dyslexia. While in Boston, she earned her master's degree in special needs and received additional training on how to teach reading. When she returned to Texas, Bailey said she called Mr. Franks because

she had not wanted to leave All-Star in the first place, and again worked at All-Star but this time as a fourth grade teacher and team leader for five years. Bailey was devoted to Mr. Franks and described the climate of the building very positively owing the success of the campus to Mr. Franks's leadership.

Deborah Cutter has taught at All-Star for eleven years in kindergarten, first, and third grades. Prior to that, she taught for three years in a neighboring district. At the time of our interview, she was employed as a part-time ESL teacher at All-Star. When Deborah has had brief breaks in her employment to care for her children, she has always returned to All-Star to work for Mr. Franks. Deborah and I rescheduled our interview several times due to a series of ice storms in the area. When we finally met, she came to my office on her day off with her eight-month old daughter whom she moved from leg to leg throughout our time together. Deborah was the final teacher interview that I conducted and her responses were perfunctory, but frequently corroborated what other teachers had said.

DISTRICT CASE STUDY – READING INTERVENTION

Accelerated Reading Instruction (ARI) as discussed in chapter one is more commonly known within the district as reading intervention and will be so referenced throughout the remainder of this chapter. The district requires that "Each student identified for intervention shall receive 30 minutes a day of targeted, small-group instruction from the classroom teacher during ELA or SLA block of time" (Information for Principals and Teachers Memo). Each campus is required to identify individual third, fourth, and fifth grade students for reading intervention based on students' most recent TPRI or reading TAKS performance. The classroom teacher is responsible for conducting reading intervention with identified students in a group size that is no larger than six students for thirty minutes each day. Each of the teachers in this case study fulfilled the district expectation to varying extents as will be discussed in the following sections.

Goals for Reading Intervention

The Texas Education Agency characterizes the goal for reading intervention as a function of the provision of intervention rather than as a function of performance. "Accelerated Reading Instruction funding is given to school districts and charter schools on a formula basis for early reading intervention. This funding is to be used to provide intensive, targeted intervention programs for students at every campus who have been identified as at-risk for reading difficulties, including dyslexia" (Texas Education

Agency, 2005a). In translation to the district and campus levels, the goal of reading intervention becomes not only based on performance, but specifically based on students' performance on the reading Texas Assessment of Knowledge and Skills (TAKS).

The only goal of reading intervention that Miranda Springer, the intermediate ELA coordinator for the district, articulated was to get students to pass reading TAKS. Mrs. Hunter (personal communication, November 20, 2006), the principal at Verne Elementary, elaborated on the goals of reading intervention when she said,

> The goal is to get them ready for the TAKS test, but if they are missing a real vital chunk of basic information, you're not going to get to TAKS if you don't have that. That's why it's real important for the teachers to spend the time to see what is it exactly that this child isn't getting and then teach that, then move toward the TAKS materials.

The principal at Stone, Mrs. Morrow, discussed the goals of reading intervention by responding, "I'm going to back up a little bit" and went on to frame reading intervention in terms of her goal of moving the school from an Acceptable rating to a Recognized rating. She recounted how Stone began to internally track individual students' performance and found that if students were new to the campus in third grade and failed reading TAKS, by the time the same student took the reading TAKS in fourth and fifth grade, the student was able to pass the assessment. From that finding, Mrs. Morrow began to examine how that was happening and looking at how "we could do it tighter and how we could do it sooner" (Morrow, November 21, 2006). Where she previously put her energy in fourth and fifth grade, it is now in second and third grade to identify at-risk students. She said, "To be successful in Clover, you have to be data-

driven," and that success is defined by the accountability rating of her campus which is achieved, in part, through the reading TAKS scores of students.

Deborah, who taught third grade at All-Star, talked about reading intervention in terms of a shift in instruction and discussed how students change from learning-to-read to reading-to-learn when moving from second to third grade. She characterized fluency as the dominant instructional element in first and second grade in contrast to third grade where effective comprehension skills are the most important instructional goal. The remainder of the teachers less frequently mentioned passing TAKS as the end goal of reading instruction in the interviews, but their discussion about the content and materials of reading intervention was almost exclusively regarding TAKS, as will be evident in the following sections.

Identification of Reading Intervention Students: Too Many and Too Few

The identification process varies according to grade level. Teachers were well-versed in the identification criteria and routinely referenced the district criteria when I asked how they identified children. Third grade students are identified for reading intervention based on the number of skills still developing on the end-of-year second grade TPRI, while fourth and fifth grade students are identified for reading intervention based on their performance on the previous year's reading TAKS. Often, when the conversation turned to the accuracy of identifying children for reading intervention, teachers split along grade level lines.

Fourth and fifth grade teachers were less critical of the identification process for their grade levels in which students' raw scores on the previous year's reading TAKS are used. Elizabeth, a fourth grade teacher at Verne, identifies students according to her students' third grade reading TAKS results, but indicated that there are some students who do well on the reading TAKS, but who still need help. Every year, she works with more students than those who are identified for reading intervention on the list she submits to the district. Mandy Howard, a fifth grade teacher at Verne, also identifies a list for the district and then creates her own list of students whom she perceives are in "serious danger." Her list is longer than the one submitted to the district. In fourth and fifth grades, the trend was that the district list under-identified students for reading intervention.

Most teachers shared Elizabeth's process for creating an "unofficial list" of intervention students. To decide who needs reading intervention, Elizabeth reported that she sometimes looks at the test scores, and sometimes "it's just an understanding" based on observations she makes during class. She said that students may not be very fluent, lack inferencing skills, or do not understand the characters. "It's really just kind of a gut feeling" (E. Newton, personal communication, November 20, 2006). The data-driven climate that Mrs. Morrow described was notably lacking from teachers' descriptions of their process for identifying struggling readers. Like Elizabeth, they repeatedly referred to identifying struggling readers through "feelings" about student performance.

Two of the third grade teachers who I interviewed were at Kodiak and were adamant that the district criteria over-identified students for reading intervention. One

contradiction arises for students who have recently exited from the bilingual program or students who are in transition from one language to another because they tend to make spelling errors on the four phonics tasks on TPRI, but do not have difficulty with comprehension or fluency. These students meet the criteria as "still developing." Shelly believed that the fluency criteria set at 90 words per minute on TPRI is a contradiction with the grade level TEKS. "I wish we didn't focus so much on 90," yet she thought that students should automatically be identified for intervention if the student was still developing in the area of fluency or comprehension. She believed that if students have between 60 and 80 word-per-minute fluency, then she feels she can get them to pass the reading TAKS test. Additionally, she wished that there was a heavier emphasis on comprehension, because that worries her more than the spelling patterns on the phonics portion of TPRI. The phonics tasks count for four out of the seven skills on TPRI. In her experience, Shelly has "had kids thrown into it who don't really need the intervention" due to what she feels is an over-emphasis on spelling patterns on the TPRI. Another frustration regarding the inaccurate identification of students for her is that when students perform poorly on a benchmark or other classroom-based assessment, she is forced to work with them only during tutoring times apart from reading intervention and extended-day programs. Her frustration arises from the district's guidelines that mandate that only students who are identified for reading intervention may be served with extended-day reading. Although Deborah, a third grade teacher at All-Star, expressed that she would have liked more control over who was identified for reading intervention, she did not

have specific criteria in mind. She simply wanted more latitude in identification as she had in identifying students for math intervention.

Since Lindsay is the third grade teacher at Kodiak who teaches the Spanish/English bilingual students for reading, she noted an additional step in the identification process. First, she must decide whether students will take the reading TAKS in English or Spanish so that she can use the corresponding end-of-year second-grade assessment for identifying students for reading intervention. Spanish-speaking students qualify for reading intervention based on a Spanish-language assessment called Tejas Lee. Previously, second grade bilingual students in the district were administered the Tejas Lee and the TPRI and third grade teachers could use the information to qualify students for intervention in English or Spanish. The district's current policy is to administer only the Tejas Lee to bilingual second grade students at the end of the school year, regardless of the individual student's Spanish or English proficiency. When Lindsay determines that a bilingual student will take the English version of the reading TAKS, she has the second grade end-of-year TPRI administered to her third grade students in order to qualify them for reading intervention. Lindsay wants the students identified for reading intervention during the school day for the district to closely match her mental list of students who are struggling so that she has the "right" students in extended-day reading.

Due to the emphasis on the spelling portion and her students' Spanish language dominance, most of her reading class qualifies for reading intervention each year in contrast to another third grade teacher at the same school. Shelly reported that, on

average, only four or five students are identified out of her reading class each year. Shelly did clarify that there are typically more than six students in her homeroom who qualify on the grade level, but they are most often ESL students and the ESL teacher is responsible for their intervention rather than the classroom teacher.

When I asked Lindsay how she decides who really does need intervention because such a large portion of the class is usually identified for intervention she responded, "I can just see who's low." Lindsay then went on to describe using class grades and other informal assessment to determine who is low. She said, "The low ones are obvious." Lindsay dislikes it when her perceived "high students" have to be identified because it is frequently due to spelling errors on the TPRI which she views as less predictive of reading difficulty. Lindsay's frustration and resentment of the reading intervention program stemmed from the time requirements. If almost her entire reading class met the identification criteria, which was often the case, then she needs ninety minutes for small-group reading intervention each day. The time allotted for Lindsay to teach reading, writing, spelling, handwriting, and grammar only amounts to 120 minutes each day necessitating some choice to be made between small-group reading and the remaining content. Lindsay's choice was to limit the amount of small-group reading intervention. Limiting or manipulating the extent of reading intervention implementation was a common way in which teachers used their power to control their classroom environments.

For many teachers, it was not simply a matter of more students or fewer students who were identified; it was a matter of having the "right" student identified. Shelly

echoed several teachers when she said, “I’ve done this long enough that I am going to have a gut feeling” (S. Mullins, personal communication, November 16, 2006). She believes that there are sufficient opportunities to measure students who are not making progress and who need to be included in intervention without making one inflexible list based on a single measure of reading achievement (the TPRI or TAKS) given at the end of the previous school year.

While the identification process was clearly in the hands of the teachers at Kodiak, the principal at Stone takes a more active role in identifying students not only for reading intervention, but as at-risk in a global sense so that the result is a much longer list of students than the one submitted to the district. During the last six weeks of second grade the principal begins to anticipate the needs of the students who will be in third grade by looking at data on all students. Mrs. Morrow commented that it is toughest for her to accurately identify students who come from outside of the district because their information is not available on the district’s data management system. To address the lack of information, she asks the Instructional Support Teachers (IST) in her building to administer TPRI in the beginning of third grade. Instructional Support Teachers specialize in content area and rotate between four buildings to provide content-specific support to teachers. Mrs. Morrow used the reading/ELA IST on her campus to identify and target students at-risk for reading difficulty in addition to the classroom teacher.

Whether the process of identification is in the hands of the teachers or the administrators, the concern was that students were not accurately identified to have access to reading intervention or extended-day reading. Third grade teachers perceived

that the measure used for identification, end-of-year second grade TPRI performance, is not predictive of third grade reading ability. Specifically, third grade teachers were resistant to the concept that the phonics (also referred to as spelling tasks) on the TPRI were correlated to reading ability. Fourth and fifth grade teachers were also reluctant to rely on a previous year's test performance to predict future reading success. Therefore, the general practice was to develop two lists: one official list for the district requirement and a second list to manage the perceived instructional needs of students.

Reading Intervention Materials: All That Money Can Buy

The district provided directions that instruction during reading intervention could include specified grade-level materials. Most of the materials include sets of short books with one story or about one topic from which the teacher may instruct students on a variety of reading skills, commonly known as leveled readers. The third grade list included:

1. Steck-Vaughn Pair-It books – a set of readers with paired non-fiction and fiction selections
2. Steck-Vaughn Take Home readers
3. Project Read Phonology – multisensory strategies and components, stories, and phonology mastery tests
4. McGraw Hill reading – the district-adopted reading textbook and ancillary materials include leveled readers

5. Silver Burdett Ginn Phonics Activity Packets for grade 2 – hands-on games and materials for explicit phonics instruction
6. Time for Kids – nonfiction reading materials in math, science, and social studies
7. another reading series is available in Spanish

The fourth grade list of allowable materials was identical with the exception of the Silver Burdett Ginn Phonics Activity Packets that were not listed as allowable materials for fourth grade students. The list of allowable materials for fifth grade included the same materials as fourth grade with the addition of the Navigator series published by Benchmark Education Company. The Navigator series mostly includes readers on topics in science, social studies, and math with an emphasis on reading skills.

The intermediate Reading/ELA Coordinator, Miranda Springer, cited two key materials that were provided for implementing reading intervention during the school day; the Steck-Vaugh Pair-It books and the Navigator series published by Benchmark Education Company. Most teachers and principals mentioned the Pair-It series in their informal inventory of materials they use for reading intervention. Two of the four campuses, however, substantially supplemented the district's provision of materials through additional purchases based on the perceived needs of the students on their campus.

At Kodiak, Mrs. Masters indicated that the classroom teachers use a series published by Hampton Brown for intervention during the school day and then added that

they also use “pretty much anything they can get their hands on” (B. Masters, personal communication, November 10, 2006). During the day, teachers mainly use leveled readers in kindergarten through second grade. During reading intervention, Shelly indicated that she uses the leveled readers that come as part of the reading textbook adopted by the district, Kamico games, a computer program called Starfall, and reading manipulatives such as phonics cards. Although she thought that the school had not purchased additional intervention materials for use during the school day, some of the materials in the list she provided were additional purchases. Lindsay uses a more limited repertoire of materials because her students mostly just do the work they are doing in class. She supplements with the phonics workbook that comes with the district-adopted textbook with the lowest students, or listens to them read their library book.

The reading intervention materials list at Stone included the Steck Vaughn Pair-It books that the district had provided, McGraw Hill materials provided with the district-adopted textbook, Gourmet Curriculum Press, “for extended day because there are games and it is very targeted”, teacher-created materials, Write Time for Kids and Time for Kids (E. Morrow, personal communication, November 21, 2006). Some of these materials, such as Gourmet Curriculum and the Time for Kids kits are also used during extended-day reading according to the principal who also indicated that these materials are shared between grade levels. The IST’s at Stone encouraged Mrs. Morrow to use Title I funds to purchase Reader’s Theater because fluency was an issue for the students and more than half of the students are LEP. She reported that she was not sold completely in the beginning, but with more research and with teachers embracing it, she has been won

over. As examples of her emphasis on putting funding into materials, Mrs. Morrow (personal communication, November 21, 2006) said that her campus "will not have a big Christmas party" and that she isn't "going to buy any more printers for the classrooms." She intends to keep allocating funding to materials. Lisa reported the exact same list of materials as the principal had mentioned.

The principal at Verne, Sylvia Hunter, described the district-provided materials that are used for reading intervention during the school day, and then went on to discuss a strategy for using materials in reading intervention. Each year, she purchases a set of materials from Curriculum Associates in which each book focuses on specific skills related to reading such as main idea or sequencing. Each book has a set of twenty lessons that take about 20-30 minutes so they can "plug the children in" who need mastery of a particular skill. In the second semester, they introduce a Kamico series because it is perceived as more difficult. "The series has a booklet for each student that teachers use to get kids ready for the reading TAKS" (S. Hunter, personal communication, November 20, 2006). Mrs. Hunter, however, did not attribute success to materials or to students, but to the teachers' skills in identifying students' needs and targeting instruction toward each student's skill deficits. Both teachers responded consistently with Mrs. Hunter.

In contrast, the principal at All-Star shrugged off my question about materials by indicating that they "use the district materials." He commented that since his teachers did not complain about needing more materials, then he assumed they had enough and Deborah corroborated his assumption. When I asked the teachers about materials, Bailey responded that teachers tended to buy things they needed for intervention with their own

money rather than campus funds. She said that teachers shared materials frequently, but when a teacher left the building, her materials went with her, resulting in widely inconsistent use of materials.

Reading Intervention Instructional Methods

Each of the teachers I interviewed has reading scheduled for approximately one hour each day per class. Departmentalized reading teachers, like Mandy Howard at Verne, see multiple classes for reading each day. For reading intervention during the school day, teachers reported that they are remediating instruction, reteaching skills, conducting TAKS preparation and using leveled readers for small group reading assignments. The frequency of each of these activities varies by grade level, teacher assessment of students' needs, and location. Although teachers described the activities that they used during small-group instruction, they were unable to specifically articulate what the pattern of the thirty-minute period consisted of instructionally. Teachers spoke in terms of materials or assignments completed rather than instructional strategy. The small-group instruction was most typically reduced to a form of close monitoring of students completing regular classwork.

The guidelines provided by the district do not specify methodology and only state that, "Each student identified for intervention shall receive 30 minutes a day of targeted, small-group (4-6 students), direct instruction from the classroom teacher during ELA or SLA block of time." Each teacher clearly understood and was able to articulate the district's criteria for time, frequency, and group size.

Mr. Franks, the principal at All-Star, indicated that teachers in the intermediate grades have not yet internalized small-group instruction as a norm in their classrooms in the way that centers-based instruction is a well-accepted paradigm for primary grade teachers. The two teachers who I interviewed from All-Star reported strong use of small-group and centers-based instruction, yet indicated that they were each the only person on their grade level teams to do so. Teachers at other campuses fleshed out Mr. Franks's sentiment by consistently reporting that the instruction that takes place during small-group intervention does not differ significantly from whole-group instruction. Mrs. Morrow's assessment of teachers was similar as she believed that teachers do not vary instructional methods in small-group intervention because there are too many students who are dependent on the teacher to keep them on-task. She believed that the students do not manage independent work well.

In describing the activity that occurs during reading intervention for grades three, four, and five, Mrs. Masters indicated that the teachers often do TAKS preparation and practice passages or go back and reteach lessons from their regular instruction. She estimated that they spend around forty percent of their time working on TAKS preparation.

Shelly, a third grade teacher at Kodiak, indicated that enriched reading instruction happens with non-identified students while she conducts small-group reading intervention, sometimes in the form of a novel study. Non-intervention students finish incomplete assignments, working independently. She typically shortens assignments for the students who are identified for intervention. To decide what she will teach, she

evaluates classwork and uses informal assessment on an on-going basis. She admitted that, despite her eleven years of experience in third grade at Kodiak, it is hard for her to differentiate teaching a whole class from teaching "three little mini-groups" the same thing.

By and large, teachers report that reading intervention consists of monitoring a small group of students who are doing the same task as the whole class resulting in a lack of differentiated activity. Although the district criteria does not explicate how small-group intervention should differ from whole-group instruction, it does seem that the intent of the guidelines, based on the phrase "targeted, direct instruction," is to provide something that is qualitatively different from what is available to all students. Teachers did not articulate any teaching methods used for small-group instruction other than monitoring students while they performed tasks.

Reading Intervention Content

As mentioned previously, teachers tend to provide the same activity for students in intervention groups as is done in the whole class. When I specifically probed about the skills that are taught, most informants reported that fluency and comprehension were the skills most frequently taught during reading intervention. In small groups, for example, Shelly works on a balance of phonics, comprehension, and fluency, but teaches some form of comprehension skills in every lesson.

Kodiak classroom teachers perform fluency checks with students up through third grade "religiously." (B. Masters, personal communication, November, 10, 2006) Fourth and fifth grade fluency checks are mainly done by the literacy specialist. For her campus,

Mrs. Masters believes that fluency is an issue for struggling readers from kindergarten through fifth grade. Shelly conducts fluency checks weekly with intervention students while non-intervention students have fluency checks every other week. She indicated that the fluency checks help intervention students attune to their progress, even if the gains are incremental at first. During the time that Shelly is working with her intervention students, she reported that they sometimes read leveled books together or she reteaches a skill that they have not yet mastered. Like her teammate, Lindsay and her students mostly do the work they are doing in class during the day for reading intervention. She does some form of enrichment with the other students while the lowest six students are out of the classroom with the literacy teacher. Enrichment for Shelly and Lindsay appeared to be any activity that was not explicitly related to TAKS instruction or practice.

Lisa, a third grade teacher at Stone Elementary, most frequently teaches students to ask the following two questions about the question they are trying to answer: 1) what is the question about?, and 2) what am I trying to find out?. She reported that students frequently are unable to interpret the intent of questions about reading and that by teaching them these two questions they are able to understand the question being asked. She is teaching kids most frequently to go back and find information in the text. "I don't think that is the most important thing, but we're all focused on TAKS and that's what they have to do in TAKS. That is not my preference" (L. West, personal communication, December 1, 2006).

When Lisa uses a particular story, she said the whole class has the same story. All of the students complete the same activities at the same time. However, the intervention students are working with the teacher while non-intervention students are engaged independently. One rationale that she offered for having students all use the same materials simultaneously was that she did not want any students to feel different.

For Elizabeth, a fourth grade teacher at Verne Elementary, the key element of reading intervention is that the small-group format is "unintimidating" to students. During reading intervention, Elizabeth reported that they go through the same steps as during whole group instruction except that they stop more frequently to talk about what they are reading and how characters act. Her colleague at Verne, Mandy, sees reading intervention during the school day as a way to help students with specific skills and uses it as a reteach time and TAKS practice time, and uses the TAKS workbooks.

Reading Intervention Training: How to Use Materials

Despite the teachers' almost unanimous awareness that training is offered by the district and their consistent requests for more training, they still estimated the district's provision of training as adequate to perform small-group reading intervention. The principals' assessment of the adequacy of the training was markedly different. The principals and teachers did agree that the district training has been highly centered on materials, rather than instructionally-based. Bailey, a fourth grade teacher at All-Star, attributed her success in teaching reading to the training she received while working in another district.

"We have just begun to realize we need to focus on [professional development]." (B. Masters, personal communication, November 10, 2006) Teachers have been trained on how to use the materials provided by the district, but they have not been adequately trained in other elements of conducting reading intervention. The teachers who have attended Reading Academies have used those materials and resources frequently. Frequent vertical planning occurs within the building where teachers have the opportunity to share strategies with one another. Mrs. Masters has established a pattern for faculty meetings in which a teacher shares with other teachers a practice or strategy that has been successful with the other teachers. She described the teachers as very eager to share with one another and said, "They would rather learn from each other than an outside source most any day." (B. Masters, personal communication, November 10, 2006) Other than the sharing that she described that occurs on-campus, there has been no formal training on strategies for effective intervention. She indicated that since quality materials and information were difficult to find, then consistent, widespread training was not a practical possibility.

Shelly attended district training and delivered information to the teachers at her campus before the campus had an Instructional Support Teacher (IST) and while the campus was between two IST's. She attended training on how to identify the students using the district criteria and how to use the Pair-It books published by Steck Vaughn that were provided by the district to intermediate grade teachers for reading intervention. Lindsay also noticed that training was mainly about the materials and how to use them, but she uses them very infrequently because she feels that most of the materials are too

difficult for her students to use. Lindsay thinks every teacher needs training on how to teach a small group and how to manage the remaining students. Although she feels like she knows what to do with the small group, she still asks, "What do I give the other kids for an hour while I'm working up here?"

Mrs. Morrow believed the training from the district was adequate only because their campus has a reading/ELA IST for the primary grades and a reading/ELA IST for the intermediate grades on whom she relies heavily to provide training. The IST's are typically working with teachers to help them understand how to disaggregate unit tests item-by-item and then sitting with teachers and telling them which materials to pull to help a particular student master a particular skill. Lisa, a third grade teacher at Stone, was certain that she had gone to some training, but she could not recall any staff development that was specific to reading intervention, nor did she identify the IST's as a source of professional development or training that Mrs. Morrow had mentioned was available.

Sylvia Hunter, the principal at Verne Elementary, has ensured that almost all of her general education teachers have attended Project READ training, a program that is typically used in the special education department in this district. Mrs. Hunter reported that training about how to teach and manage small groups was offered mostly within her building and only infrequently at the district level. She feels that she has a deep knowledge base about teaching reading in a small-group format because of her experience as a first grade teacher, so she often provided training informally to teachers since training at the district level tended to remain at the level of materials.

Most teachers reported that they had participated in training about materials at some point, but had only rarely or never attended training at the district level about the instructional processes or management of small-group intervention. Miranda Springer affirmed this conclusion when she indicated that she knew that materials training had occurred when the materials were first introduced, but that her overtures to conduct other types of training had not been well-attended by teachers. Only one teacher, Deborah at All-Star, contradicted the other teachers. She was the ELA and Reading cadre representative for her campus for several years so she attended meetings and trainings provided for the teacher leaders and IST's at each campus. Deborah took the information and provided staff development at All-Star based on what she had learned at the meetings. Because she had so many opportunities to attend training as the cadre representative over the years, she characterized the training as more effective than other informants.

Reading Intervention Management: Scheduling Challenges

Through the interviews, a wide variance in dedication to small-group reading intervention and the scheduling of intervention emerged. Most of the teachers reported that they infrequently have the intervention students come to small-group reading instruction or pulled students on a regular basis but not daily, while only two of the eight teachers were persistent in asserting that the small-group intervention happened on a daily basis.

At Stone, reading intervention conducted during the day involves classroom teachers, the literacy specialist, and the ESL teacher. "Individually, I cannot ask anyone to work any harder" (E. Morrow, personal communication, November 21, 2006). Mrs. Morrow spoke about the manner in which she has assigned every non-classroom teacher to a grade level to diminish classroom teachers' isolation and pressure as the sole person responsible for TAKS results. She was quick to add that specials teachers, such as the music teacher, have always had buy-in, but now they have a specific grade level that they are responsible for learning in terms of curriculum and materials so they directly share the responsibility for ensuring that students pass TAKS.

At Stone, as in many other schools, there are more than six students per class identified for reading intervention. Mrs. Morrow voiced the anthem that I frequently heard from all of the teachers that I interviewed when she said that teachers don't like to be locked into doing the small-group intervention during the day. She specifically mentioned one teacher who is "hard-headed" but has almost 100% of her students pass reading TAKS, "but there is blood and guts on the road by the time you get there" (E. Morrow, personal communication, November 21, 2006). This teacher does not like being separated from the majority of her class with the small group, even though they are still in the same classroom. Mrs. Morrow and the teacher have made a compromise in which the students are grouped in the room, but not physically separated, and the teacher monitors very closely. Mrs. Morrow's own sentiment is that the intervention group is truly a mechanism for the teachers to know who those kids are and to monitor them very closely.

Lindsay, the bilingual teacher at Kodiak, was very frank about the limitations she feels in meeting the district guidelines. Most of Lindsay's class is identified for intervention, so she cannot conduct small-group reading intervention because that would be 90 minutes of the 120 minutes that she has for ELA. She usually has 18-20 kids identified out of 22 possible students. She does work with five or six students grouped together based on skill level, but she does not pull every group for thirty minutes every day. She became a little nervous at this part of the discussion and continued to assert that she knew what she was mandated to do in terms of time for each group but then continually reiterated the constraints of time given the large number of students who are identified in her class each year. "That part gets frustrating." She attenuated her statement about the lack of frequency that she meets with groups by concluding that she tries to meet with each group every couple of days.

The requirement that the classroom teacher of record provide the reading intervention was another source of frustration. Lindsay's lowest six students go to the literacy specialist for thirty minutes each day, but "They say that doesn't count for their thirty minutes [of reading intervention]" (L. Adams, personal communication, November 20, 2006). These six students are the same six that she keeps for reading intervention and extended-day reading, so she believes that the time with the literacy specialist should serve as the students' small-group reading intervention for the day.

Only two teachers were firm in the frequency with which they conduct small-group reading intervention. Shelly, a third grade teacher at Kodiak, was clear that she teachers her intervention students in a small group for thirty minutes each day, but

allowed that the time may not be consecutive. She discussed a pattern in which she sometimes teaches a small group of identified students during the reading block for about 15 minutes and then, if the students have difficulty with the spelling pattern, for example, she then teaches them in a small-group format again during that period of instruction. "I really try to make it a focus on what they are learning at the moment." (S. Mullins, personal communication, November 16, 2006). Intervention students also go to the Literacy Specialist for thirty minutes each day.

Elizabeth Newton, a fourth grade teacher at Verne Elementary, also reported high dedication to reading intervention for thirty minutes every day. When I probed further and suggested that perhaps they might miss the thirty-minute intervention on a day when there has been a school-wide program, she was quick to contradict me and assert that she finds a way to fit in thirty minutes with students who were identified for reading intervention.

When I asked how Lisa implements reading intervention at Stone, she responded that "we are supposed to do thirty minutes of small-group reading intervention, but…" and pretended to cover the tape recorder with her hand (L. West, personal communication, December 1, 2006). Lisa did concede that she groups her students according to who is identified for reading intervention and indicated that her room is basically divided into quadrants. Intervention students sit with one another. It is important to note that the lines are imaginary and that the desk configurations that I observed did not promote physical separation of one group from the others. In this manner, she feels that she intervenes all day long by clarifying directions, double-

checking work in progress, and by positioning herself closer to the collection of intervention students most of the time. When she does teach students identified for intervention in a small-group format, she most frequently reviews the directions with the students and then discusses the questions with them. Although Mrs. Morrow had not identified the "hard-headed teacher" by name who deviated from the guidelines yet who had such consistently high results on reading TAKS, I realized I was interviewing her.

Other teachers had worked out a compromise for the time commitment as Deborah, a third grade teacher at All-Star, did. She taught mainly whole-group lessons Monday through Wednesday and then used centers-based instruction to divide her class into thirds so she could work with students in small groups on Thursday and Friday of each week. She acknowledged that she was intended to work with intervention students on a daily basis for thirty minutes each week and she felt she met the spirit of the guidelines by arranging the students physically in the room to provide additional support in the first part of the week.

Reading Intervention Challenges: Time Is Not On Our Side

The most significant challenge for effectively implementing reading intervention during the school day according to the teachers is time. The teachers tended to attribute their difficulties with time to the way that their daily schedules were constructed even though principals reported that they had intentionally created intervention or tutoring classes for the schedule. Materials were the lowest priority on everyone's list in terms of challenges for implementing reading intervention.

While Mrs. Masters indicated that time to conduct intervention is a significant challenge for teachers, she also sees a need for training. The most pervasive training need is in helping upper grade teachers perceive themselves as "small-group teachers." She reported that the great majority of the teachers at Kodiak were quite experienced teachers who are accustomed to whole-group instruction, especially in terms of how to monitor students and keep non-intervention students actively learning while the teacher's attention is focused on the small group. Mr. Franks also reported that intermediate grade teachers at All-Star have had difficulty in instructionally shifting from whole-group instruction to meaningful small-group instruction. Although Mrs. Morrow mentioned training, she believed that the lack of training was a result of teachers not having sufficient time to attend training.

Each of the schools has implemented a scheduling change, most often in the form of a tutoring class, to help teachers manage the issue of meeting with a small group for thirty minutes each day. The principals at Kodiak and Verne have built in time in the master schedule for intervention to occur in which non-intervention students leave the classroom while identified students remain. For example, one of the bilingual classes at Kodiak has 18 of 22 students who have been identified for intervention. Rather than pull three groups of six, the teacher ability groups her students during instruction and "makes the rounds while they are working together." (B. Masters, personal communication, November 10, 2006) Sometimes she will provide an activity to two groups and pull the third group during the tutoring time that is scheduled.

When Shelly talked about the difficulty of finding time to conduct small-group reading intervention, she indicated that the constraints of the district's online curriculum and the way that they switch classes allow very little flexibility. For Shelly, there is also an inherent contradiction in implementing intervention because she feels like she is neglecting the students who are not identified for intervention. Lindsay further explained that she "feels bad because I don't feel like I'm doing it right because I don't pull the kids as often as I'm supposed to" (Adams, November 20, 2006).

Lisa, a third grade teacher at Stone, was unique in indicating that discipline inhibits intervention because while she is helping a group, the other students are misbehaving. She felt that if she had an aide in the classroom, then she could conduct reading intervention in small instructional groups. An ESL teacher does come to her classroom for forty-five minutes a day to support instruction, but that was still not sufficient for her to implement intervention.

Reading Intervention Effectiveness: It Helps

Informants were fairly consistent in reporting that reading intervention alone does not seem to make enough of a difference. Each campus had a design to supplement reading intervention with extended-day programs and with tutoring programs in addition to that.

When I asked about the effectiveness of reading intervention as a program separate from other tutoring programs at the school, Mrs. Masters (personal communication, November 10, 2006) indicated that it has not been "the most effective

thing because there are so many other things going on in the classroom. The world doesn't stop for intervention." She admitted that reading intervention probably is not happening every day in thirty minute increments. Mrs. Masters believes that reading intervention alone is not enough to advance students to grade level which is why they increase the service provision to at-risk students with the extended-day program and additional tutoring beyond the extended-day program. She believed that the effectiveness of reading intervention varied by student ethnicity as well as language program participation, even though it is not a very heterogeneous campus. Mrs. Masters (personal communication, November 10, 2006) said, "We are mainly Hispanic. We are mainly free/reduced lunch. We are becoming more Asian."

In discussing the effectiveness of reading intervention, Mrs. Masters said that no matter what language children speak, if the child's parents have denied their child participation in the appropriate bilingual or ESL program then it becomes one of the biggest challenges to get that child reading on grade level. This observation, for Mrs. Masters, was even truer for children who are newcomers to the United States. She indicated that there are very few African-American students at Kodiak, and, for the most part, they tend to do well. She noted that the African-American students' learning style is very different than the traditional Hispanic learning style and proceeded to tell a story about an African-American Hurricane Katrina evacuee who came to their school and was very shocked at the Hispanic students who comfortably switched frequently between speaking in Spanish and English, a practice that she encourages school-wide. She reported that surprise at the dual language environment is a common experience for

visitors and people who are new to the campus. She added finally that she believed reading intervention was least effective for African-American students who have reading difficulties because what happens in the groups does not meet their learning style. Mrs. Masters believed that African-American students do not respond to small-group reading intervention as conducted at Kodiak as significantly as the Hispanic population at the school.

Shelly believed that reading intervention by itself would not be enough to get students to grade level performance. Students who benefit most are those who have shorter attention spans because they have one-on-one focus that helps them. The other kids that it helps the most are those who come from another school that are marginally behind.

Lindsay sees progress in the students she works with, but does not think that reading intervention during the day would be enough for all of her students. She surmised that it might be enough for "bubble kids" who are just a little behind because they benefit from the extra teacher attention. For really low students, it is not enough at all because they are distracted and seem to go from group to group during the day.

The consensus at Stone was similar in that reading intervention alone would not be "enough". Mrs. Morrow perceives that the lack of effectiveness has to do with the physical separation of the intervention students from the whole class. She believes that, first, students in grades three, four, and five do not like to be separated. Mrs. Morrow also views the diversion of the teachers' attention toward intervention students as antithetical to her goal of having students perform at the commended level on the reading

TAKS because it is a loss of thirty minutes of instruction. While she admitted that something is working to make students successful on reading TAKS, she believed that reading intervention needs to be part of a larger package of tutoring, mentoring, and extended-day programs. Intervention makes the teachers aware of the students so that when a specific skill comes up, the teacher makes sure to monitor the students on the intervention list. As evidence that the intervention identification process has increased awareness, Mrs. Morrow offered that she no longer sees a child completing an assignment incorrectly from beginning to end when she observes in classrooms.

Mrs. Morrow believes that the teacher is more important than the 30 minutes component. For the child who needs to have the teacher's undivided attention, then it is more effective. "For skilled teachers who know how to identify and impact students and who are doing tutorials and extended day, I would rather leave them to do the whole-group instruction and activities" (E. Morrow, personal communication, November 21, 2006). Mrs. Hunter, the principal at Verne, also emphasized the teacher as the critical element in effective reading intervention.

SUMMARY OF READING INTERVENTION

Teachers and administrators viewed reading intervention as an imposed requirement that constrained their teaching habits and controlled teachers' autonomy to make decisions about their students. Although some acknowledged the benefits of small-group instruction, it was not a strategy that they reported embracing and practicing in a dedicated manner. Teachers attributed the infrequency of small-group instruction to time

and scheduling constraints as well as management issues related to keeping other students on-task and learning. Teachers also characterized small-group instruction as getting in the way of teaching non-identified students so that they could pass TAKS. The administrators were more likely to attribute the teachers' reluctance to a lack of professional development on how to manage and teach through small groups. Everyone agreed that there were plenty of materials and training on the use of materials, but a lack of training provided by the district that was instructionally-based.

The teachers' lack of autonomy extended to strong feelings about the inaccuracy of the identification process. Third grade teachers were consistently frustrated that they submitted a list of students to the district that did not represent the students who they believe truly needed intervention and since the size of the groups would necessitate the majority of their ELA or reading period dedicated to small-group instruction. Fourth and fifth grade teachers were more accepting of the requirements because the criteria yield much smaller groups per class and they can add a student or two to their groups when they have small-group instruction. Throughout most of the interviews, teachers and administrators voiced their dependence on a "gut feeling" and observation to identify struggling students and to make instructional decisions to remediate at-risk students.

Overall, reading intervention was articulated as a program that helps students even though there was not much evidence that teachers or principals are dedicated to its implementation. All interviewees, with the exception of the ELA coordinator, viewed extended-day reading as an extension to reading intervention as we shall see in the following section.

DISTRICT CASE STUDY – EXTENDED-DAY READING

Each campus that participated in this study had an extended-day reading program for each of the three years of the study and each of the principals were the lead campus-based administrator at their campus for each of the years of the study. All of the teacher informants taught reading extended-day for a period within the years of the study. The district allows each campus to design extended-day reading according to the perceived needs of students, budget allocations, and staffing availability. Individual campuses may design the extended-day reading program with any combination of days and time as long as the design does not exceed 2400 minutes per week. Extended-day reading programs are funded for students who are identified for reading intervention during the school day because the funds are provided through the Accelerated Reading Instruction grant, as discussed in the first chapter of this dissertation.

Individual campuses may be limited in their program design by the need to transport some students using district-provided transportation. Two of the schools in this study needed transportation and were subsequently limited in their extended-day reading design because transportation is only provided two days of the week. Additionally,

schools must conclude their programs at 5:00 if bus transportation is needed. Campuses may also opt to hold extended-week reading programs on Saturdays for two to four hours.

Kodiak and Stone Elementary were not constrained by transportation needs. Kodiak held extended-day reading programs Monday through Wednesday depending on teachers' and students' schedules, but students did not attend each of those days. Fourth and fifth grade students attend extended-day reading for a maximum of one hour each week. Third grade students attend two days of extended-day reading for a maximum of two hours each week up until the first of the three administrations of the reading TAKS test. After the first administration, students stop attending extended-day reading and begin attending extended-day math. Kodiak also holds tutoring after school on Monday through Wednesday. Students who attend tutoring have not met the criteria to attend extended-day reading. Some teachers have tutoring at the same time they have extended-day reading as we will see in the following sections. Other teachers hold tutoring on days that they do not have students for extended-day reading.

Stone Elementary has an elaborate plan that includes tutoring, extended-day reading, and extended-week reading. Classroom teachers tutor their own students from 3:00, the end of the school day, until 4:00 on Mondays through Thursdays. Extended-day reading begins at 4:00 and ends at 5:00 on Mondays and Tuesdays. Extended-day reading may be conducted by a teacher who is different than the classroom teacher. In addition, Stone has extended-week reading, also known as Saturday school, where third, fourth, and fifth grade students attend a reading group for up to two hours.

Verne and All-Star Elementary each had students who required bus transportation and designed their programs to accommodate those students. Neither school held an extended-week reading program on Saturdays. Verne is limited to two days of extended-day reading; Monday until 4:00 for students who do not need transportation and Wednesday until 5:00 for bus students. Tutoring takes place every morning before school beginning at 7:30 or on Tuesdays after school for unspecified amounts of time at the discretion of the teachers.

All-Star Elementary held extended-day reading on Wednesdays and Thursdays until 5:00. Tutoring, like Verne, took place in the mornings before school beginning at 7:30 am as well as after school on Mondays and Tuesdays for students who do not need bus transportation.

Tutoring was less structured than extended-day reading at each of the schools because the student groups are more flexible. Students attend extended-day reading for an entire semester or year while tutoring students may come to tutoring for a span of time that is only a couple of weeks. Tutoring was also not limited to reading content.

See Table 14 for a summary of the schools' designs.

Table 14 – Summary of Campus Designs for Reading Intervention, Extended-Day Reading, and Tutoring

	Kodiak Elementary			Stone Elementary			Verne Elementary			All-Star Elementary		
	3	4	5	3	4	5	3	4	5	3	4	5
Reading Intervention	30 minutes daily provided by the classroom teacher in a small group with no more than 6 students			30 minutes daily provided by the classroom teacher in a small group with no more than 6 students			30 minutes daily provided by the classroom teacher in a small group with no more than 6 students			30 minutes daily provided by the classroom teacher in a small group with no more than 6 students		
Extended Day	2 hours of reading each week up until the first administration of reading TAKS (in February)	1 hour of reading per week	1 hour of reading per week	2 hours of reading each week over 2 days of the week			2 hours of reading each week on 1 day of the week			3 hours of reading each week over 2 days of the week until the first administration of reading TAKS (in February)	3 hours of reading each week over 2 days of the week	3 hours of reading each week over 2 days of the week until the first administration of reading TAKS (in February)
Extended Week	None			2 hours reading on Saturday			None			None		
Tutoring	2 sessions of 45 minutes after school possible			Up to 1 hour after school 4 days each week possible			30 minute sessions before school 5 days each week possible			30 minute sessions before school 5 days each week possible		

Goals for Extended Day: TAKS, TAKS, and more TAKS

Whereas teachers and administrators often carefully constructed their responses about the goals for reading intervention during the day to balance reading instruction with TAKS preparation, the goals for extended-day reading were explicitly in terms of getting students to pass the reading TAKS.

Shelly was the only teacher who explicitly mentioned instructional goals in her discussion of extended-day reading and it was situated in her actions rather than the students' actions. She stated her goal as trying to model the thinking behind reading.

Extended-day Instructional Methods

The teachers and principal at Verne spoke about their method for tutoring as a plan in which they methodically worked through skills with the students. In their progression through the skills, they include students who struggle with that skill in the tutoring group. In contrast, Kodiak's plan was to identify the student, then include the student in every opportunity for tutoring or remediation and work on the needs of the identified students.

Two schools reported using the computer lab during extended-day reading. Mrs. Masters stated that the computer lab is also used frequently during extended-day reading, specifically mentioning Readers Workshop and Successmaker, for about 20-30 minutes of the hour in computer lab. Mrs. Masters indicated that teachers frequently work on fluency with students during extended-day reading as well as model reading strategies

using the overhead. She believed that the reason many of the activities during extended-day reading relied on TAKS preparation practice worksheets is due to the difficulty teachers' have in developing game-based activities like they do for math tutoring.

Lisa, at Stone Elementary, reported the most varied use of computers during extended-day reading. She uses a program called Reading Adventures in her classroom as a teacher-guided activity then releases the students to the computer lab to complete the program as an independent activity. She spoke about the computer lab as an activity that students do not normally access during the school day. Lisa also frequently drops the students' levels on the individually-guided portion of the computer so that they will feel more successful and gain confidence.

Although teachers reported that their methods more explicitly focus on TAKS preparation, they were also more likely to report that they used games and manipulatives during extended-day reading. During extended-day reading at Verne, Mandy reviews the benchmarks and uses the focus books to target skills, but frequently enriches those strategies with activities like vocabulary matching games in an effort to vary the groups and activities because "they don't like it if it is too much like school" (M. Howard, personal communication, November 20, 2006). Mandy (M. Howard, personal communication, November 20, 2006) does not want extended-day reading to be "just reading and talking about it." Deborah used almost the exact same words to describe her attempt to vary the tasks for students in extended-day reading.

Identification of Extended-Day Students: Expanding the Criteria

In order to receive funding for a student's participation in extended-day reading, the student must meet the criteria for identification for reading intervention. Every single informant reported that they use the criteria for identification for reading intervention provided by the district for including students in extended-day reading, and then added that if there is a space, another student will be added to the group, even if the additional student does not meet the identification criteria.

Kodiak offers extended-day reading to every student who is on an intervention list. They also include students based on classroom performance, mock TAKS administrations, and benchmarks. When a student drops extended-day reading, or if space is available, teachers invite students who did not meet the identification criteria although the group sizes are maintained at or below six students. They include extra students because "kids don't fit the qualification set by the district, but still need intervention" (B. Masters, personal communication, November 10, 2006).

Predominantly, Mrs. Masters indicated that parents are supportive of the extended-day program since only a handful of students deny extended day each year. When parents deny extended day, Mrs. Masters sends home a letter to parents in which the parents must sign that they "assume all responsibility for remediating their student. Rather than sign it and send it back, they bring their kids to extended day" (B. Masters, personal communication, November 10, 2006).

At Verne, Elizabeth's extended-day reading group is not automatically the same as the reading intervention list due to the extensive additional tutoring that is also offered.

She wishes that she had more autonomy in choosing the intervention list because it is limited by the raw score cutoff.

Extended-day Materials: TAKS Practice

Most informants reported that different materials are used for extended-day reading than for reading intervention during the school day. At Kodiak, those materials include a developmental and diagnostic series published by Kamico, consumables included with the district's adopted reading textbook, TAKS preparation materials, and teacher-made games. Fifth grade teachers also use novels and reader's theater materials for extended-day reading. Mrs. Masters commented that while she knew TAKS preparation materials were not intended to be used in extended-day reading, she did not explicitly allow nor prohibit their use and was aware that they were being used. When I later interviewed each of the third grade teachers, they also indicated, without my prompting them, that they knew they were not "supposed to" use TAKS preparation materials, but felt that they need to include this type of activity in extended-day reading. Although Shelly primarily uses TAKS preparation materials during extended-day reading when she notices that the students are tired and starting to drift, she will shift activities to a computer-based program called Study Island. During the last 15 minutes, she brings in the Pair-It books and that is a time for them to enjoy literature together and relax.

Mr. Franks does not use the extended-day reading budget to purchase additional materials. He believes the amount of materials available to teachers is adequate. Mrs. Morrow also believed that since teachers have not indicated a lack of materials lately, she felt like issues that arose when the program began have been resolved. Most of the

teacher-created materials are used during extended-day reading at Stone, but those are the only materials held aside for exclusive use during the extended-day programs. The teachers at Stone provided a different picture of materials for extended-day reading. When I probed teachers at Stone about whether or not they retain materials for exclusive use during extended-day reading, they indicated that materials are fluidly used between general classroom instruction, intervention, and extended-day reading.

Elizabeth gushed about the amount of materials that are available to the teachers at Verne. She reported that the abundance of materials makes it easy to fit the material to the student and there is rarely, if ever, a mismatch between her students' needs and the materials available.

Extended-day Training: Materials, Again

Mrs. Morrow summed up the extended-day training thematically for all of the informants when she said, "sort of, but not really." Administrators and teachers alike reported that the district provides kits or materials to teach extended-day reading and then offers training about using the materials, but no training on other, related topics. Since the teachers at Stone have requested additional training, Mrs. Morrow has used school funds to send teachers to the regional education service center to participate in training. Although the training is often provided free of charge, the school budget pays for the substitute for the teacher to be released to attend training. Recently, she sent several teachers to the Texas Association for the Improvement of Reading conference, even though she felt that it was very expensive. She said that she has "created the climate that

the teachers are worth the money" (E. Morrow, personal communication, November 21, 2006).

At Verne and All-Star, the principals did not emphasize training as Mrs. Morrow had because, in Mrs. Hunter's words (personal communication, November 20, 2006), they have a "real, solid core of experienced master teachers." Each of the principals described unofficial teacher leaders as master teachers who train new teachers to the norms and expectations of the building.

Shelly, the monolingual teacher at Kodiak, reported that there has been no significant training for extended-day reading. She felt that because she has had so many years of experience, then the training that was provided was sufficient, but for new teachers it probably would not be adequate. She attributed that assessment to her recollection that, despite thirteen years of teaching at that point, extended day was difficult in the first year of implementation. Similarly, Elizabeth had only attended campus-based training, but even that was limited to only once or twice.

Extended-day Content: In the direction of TAKS

When I spoke with the ELA Intermediate Coordinator for the district, she declined to answer any questions about extended-day reading because she perceived extended-day reading as completely under the purview of another department in the district. However, teachers and principals tended to conceive of extended-day reading as an extension of reading intervention, describing the content and materials as parts of the same program and only distinguishing the programs according to the time of day. This is

true to the extent that teachers include only students identified for reading intervention in extended-day reading.

In extended-day reading, Shelly starts off with a phonics activity, reviews a skill that has been taught in class, spends some time on TAKS-like questions that address the skill that has been taught, and uses a TAKS reading passage. TAKS passages are narrative or expository text usually two to three pages in length followed by questions that assess skills such as reading comprehension, inferencing, and other reading skills. Often, she uses materials from the district-adopted Social Studies text. At Kodiak, Shelly and Lindsay both reported that the pattern of activities changes during extended-day reading as they get closer to the first administration of the reading TAKS. At first, teachers vary activities by reading basal stories and by using the computer until January when they switch exclusively to TAKS preparation passages. Third grade students stay with the same teacher for an hour for reading two days a week until after the first administration when the content switches to math.

Lindsay admitted that she does not have a plan for what she does during extended day. She makes the decisions about what she will teach based on what has happened during the school day. At Verne, Elizabeth described how she uses benchmark data to decide what she will teach and then went on to explicitly discuss how her extended-day reading time is more TAKS-focused than reading intervention during the school day. In contrast, Lisa spends a significant amount of time working on phonics in extended-day reading and denied that they spend large amounts of time completing TAKS materials.

Like the other teachers, planning for extended-day reading was inconsistent or based solely on classroom observation.

Mrs. Hunter indicated that the district's online curriculum has too much for teachers to use during the school day, so they select lessons from the online curriculum to use during extended-day reading such as completing another activity with the story of the week. Ultimately, she reported, they do whatever they believe is needed during extended-day reading and that may include identifying specific skills or continuing the online curriculum.

Management and Organization: Vying for Time and Students

At Kodiak, fourth and fifth grade students who participate in the extended-day program only have one subject per day for one hour, so students who need more subjects come more days. Therefore, fourth and fifth grade students have a maximum of one hour each week of reading in the extended-day program. Third grade students stay twice a week for an hour each day up until the first administration of the reading TAKS when they stop reading instruction in the extended-day program and switch to math instruction during the extended-day program. Mrs. Masters indicated that she knows this may be an unorthodox pattern for extended-day programs, but cited the third grade teachers' successful test results over several years as a rationale for continuing this particular pattern of service provision. Group sizes are maintained at six or fewer students.

At least one teacher or administrator at each of the schools reported that the official reading intervention list is used to identify students for extended-day reading, but students are often added to a group when that does not make the group size exceed six

students. At Kodiak, for example, Shelly has students who stay for tutoring that overlap with the students who are there for extended-day reading so that extended-day reading becomes more like reading intervention during the school day and she is working with a small group while tutoring students are working on other tasks in the same room.

Stone had the most extensive plan for tutoring and extended-day programs of all of the schools that included school on Saturdays and a tutoring or extended-day class occurring on each day of the week. Lisa teaches a combination of reading and math for six hours on Saturdays and fourth grade reading to bilingual students on Monday and Tuesday from 4-5 for extended-day reading (after the students have already been tutored from 3:00-4:00 with their classroom teacher). Since Stone does not have buses, parents provide transportation for the students or they walk to and from school.

Verne has groups of students staying until 4:00 on Monday and Wednesday for tutoring and an additional day of extended-day until 5:00. While Mrs. Hunter would like to have a more extensive extended-day program, they are limited by funding to pay teachers. Mrs. Hunter (personal communication, November 20, 2006) said that, "Our hope is that by keeping kids on Mondays and Wednesdays that will be enough for those kids. The extended-day kids are the kids that we are most worried about." Third grade has broken their time into three thirty-minute lessons in which students have three different reading sessions with three different teachers. Fourth and fifth grade students stay with the same teacher for ninety minutes, but divide their time into two forty-five minute blocks, still all on reading. Teachers typically work with their own students,

although sharing of students occurs when one teacher has a disproportionate load of students identified for reading intervention.

All-Star has extended-day classes until 5:00 two days a week. Mr. Franks indicated that there are students that he would like to keep longer, but that the school's scheduling is limited by the days that the district can provide transportation. To supplement extended-day programs, teachers pull bilingual students who ride a bus to All-Star for morning tutoring and then students are allowed to eat breakfast in the cafeteria after their tutoring session. Only the students identified for intervention stay for the extended-day program and, if identified for reading intervention, have only reading instruction for an hour and a half on both days. Similar to Kodiak, the teachers at All-Star manipulate the instructional content of extended-day classes according to the TAKS administration that is next during the year. Mr. Franks said that the teachers at first resisted this pattern of concentration on subject matter dictated by the next TAKS administration, but that they have become more flexible in how they work with students who need intervention.

Challenges: We may have some money, but we still need more time

Two of the four principals did not see students being tired from extended-day hours as a challenge for implementing extended-day reading programs. Each teacher spoke about the challenges of the students being tired from a full school day, as well as their own levels of exhaustion. Mrs. Hunter, the principal at Verne, admitted that extended-day reading is a long day for students and teachers and provided the example of

students falling asleep on the bus on the way home as evidence of their exhaustion. However, like the other principals, Mrs. Hunter believed the greatest challenges for implementing extended-day reading were money and time. While Mrs. Morrow did not think students were tired, she did feel that the extended-day program wears the teachers down and that, in turn, forces her to look for ways to build morale. Regarding the tutoring and extended-day time and energy commitment, she said that during the interview process she tells candidates that, "If their personal life can't handle it, then this isn't the school for them. That is just what it takes on this campus."

Mrs. Masters was proud to say that she has 100% buy-in of teachers working in the extended-day program. Because all of the teachers are involved in teaching extended-day classes, then she indicated that there is less of a need to have focused monitoring for reading intervention. None of the regular education students are bused to Kodiak, so transportation has not been an issue in recruiting students for extended-day reading, nor has transportation limited the design of the extended-day program. At Kodiak, the biggest challenge in implementing extended-day reading has been funding, quickly followed by scheduling. Since Kodiak has afternoon snacks supplied for free because of the high number of students who are participants in the federal free and reduced lunch program, funds are not needed to pay for snacks. And, although they can always use more materials, Mrs. Masters believes the current materials are sufficient. She reported that the funds are inadequate to pay teachers to teach more than one hour per week in the extended-day program. Configuring a schedule that matches when teachers and students can stay is another large hurdle. Unlike other campuses, she reported no problems at all

in recruiting teachers. "The climate and culture of the school is that if you are a professional faculty member then you teach extended day. Everyone volunteers" (B. Masters, personal communication, November 10, 2006).

Mrs. Masters recalled that during the first year of the extended-day program there were concerns from parents and teachers about kids staying at school later and getting home late or being tired, but that everyone became quickly accustomed to the program and it has ceased to be an issue. She attributed the comfort level, in part, to children having a time after the end of the official school day to have a snack in the cafeteria and an opportunity to socialize with friends before beginning the extended-day classes.

Shelly, like most of the teachers, reported that it is difficult to keep the students excited and focused. She also had difficulty finding materials that elevate the students' performance, yet, at the same time are not so overwhelming to the students that they give up. Lindsay spoke about materials, although her primary challenge has been in finding materials in the right language at the right level, so she creates her own materials frequently. Once they switch to TAKS passages exclusively in January, she reported that she has plenty of resources.

Lisa sees focus and inattention as a major challenge, but she believes she has fewer challenges than other teachers because she uses materials that are at least a half a grade level below for the students. Lisa reported that students like to come because they are successful and make good grades, so it is "fun." For herself, she would rather teach extended-day reading than tutorials because the teachers are not told by the principal what to teach during extended-day programs. In extended-day reading, she has more

latitude to decide what she is going to teach and how she is going to manage the program. She enjoys Saturday school the most because she and the students have had some rest, and the students think they are playing games while truly learning and working on skills.

Elizabeth echoed her principal's assessment of the challenges of extended-day reading when she said "the kids are tired and giggly." She modified her statement by saying that with such a small group of students, discipline is never an issue. "I know they can do it, it's just not easy for them" (E. Newton, personal communication, November 20, 2006). Likewise, Mandy believes the greatest challenge is keeping the students focused and working at their maximum effort because they are tired. She prefers the tutoring days until 4:00 because it is easier to keep the students engaged, although she reported that discipline is not an issue for her either.

All but one of the principals reported that it is always a struggle to recruit teachers to teach extended-day reading. Mrs. Hunter (personal communication, November 20, 2006) summed it up by saying, "They have flat said that $20 is not worth the exhaustion." (She was referring to the hourly teacher pay rate during the period of the study.) On the days of the extended-day reading program, it is easily 5:15 or 5:30 for some schools before the parents get there to pick up the students. Mrs. Hunter then spoke about the commitment of the teachers and how that often overrides the teachers' reluctance to work additional hours. "They take everything that their kids do as a personal reflection on them. It is intrinsic, a personal pride thing for them" (S. Hunter, personal communication, November 20, 2006).

Extended-day Effectiveness: We need it

In the words of Mrs. Hunter (S. Hunter, personal communication, November 20, 2006), "We need this program in order to make it." Mrs. Masters (personal communication, November 10, 2006) believes that students would "gain nearly as much just with extended day without intervention during the day because I think my teachers would automatically just focus on those kids who need help." All of the principals agreed that it was not thirty minutes of intervention during the school day that helped their students the most. They emphasized the tutoring programs and extended-day programs as the main conduit for reaching struggling students.

In contrast to reading intervention, Shelly believed that extended-day reading has been very effective because it brings reading problems to the attention of the parents. She spoke about the after-school component being an additional attention-getter for parents and perhaps more significant to them than interventions that happen during the school day. Elizabeth believed that extended-day reading is effective because the students appreciate the small-group time with their teacher. There is an effort at her school to make the extended-day reading program special for the students by providing a snack and a drink. Although motivating the students to participate in extended-day reading is not a challenge for Verne, they do have to work at communicating with parents so that parents understand the validity and importance of extended-day reading. When I asked Elizabeth if she would like more flexibility with the grouping of her extended-day reading students, she responded that she prefers to keep that group static because those

are the students who need a very structured routine to get the benefits of the additional time in school.

Mrs. Morrow believes extended-day reading is very effective, especially for the "bubble students," or those students who are only marginally behind the average student in terms of reading achievement. In addition to the extra time, she discussed the affective components that develop for the students such as feeling that they are part of a group of students and receiving extra encouragement from teachers. She said, "I truly believe that what got us where we needed to be was a combination of the way I monitor, the ways the teachers are taking that monitoring and using it, and extended day."

Only one teacher, Lindsay, was torn about the effectiveness of extended-day reading. She feels like she can get more done with an hour of time, but that it isn't always the most productive time because she is working with the lowest students and they are "spent" and difficult to engage at the end of the school day. Lisa thinks Saturday school is effective, but does not necessarily think that extended-day reading and tutorials are very effective because she views herself and the other teachers as "grumpier" in the afternoons.

Mrs. Hunter sees extended-day reading as very effective for getting kids on grade level, but moderated that statement by attributing the success of students to the quality of the classroom teacher. She also indicated that having students stay for one day a week for a longer period of time is less effective than having students stay after school for shorter periods of time more frequently. Since students at Verne often need transportation, Mrs. Hunter is limited in the design of the extended-day program.

Even though teachers and students are tired, that does not inhibit the overall effectiveness of extended-day reading for Mr. Franks. He believes that extended-day reading is especially critical for Spanish-speaking students and severely at-risk students because they just need more time at school.

Summary of Extended-Day Reading

Unlike reading intervention, extended-day reading was perceived as an essential mechanism by which teachers and administrators ensure that students pass TAKS. It was clear, however, that extended-day reading was not the only provision of services outside of the school day. Each school supplemented extended-day reading with additional tutoring programs that were unfunded. Schools that rely on district transportation were more limited in the amount of time that they have identified students at school, but even they manipulated the school day to be longer and include more time for tutoring. At some schools, students were able to spend what amounted to another instructional day (six hours) with teachers through a combination of extended-day reading and extra tutoring.

Again, materials were sufficient and training was lacking or training was exclusively about the use of materials. The content of extended-day reading was consistently reduced to TAKS practice, but teachers still did not articulate instructional strategies and relied on their use of materials to discuss what happens with students during extended-day reading. Teachers also did not report that they plan extended-day as a separate entity from their regular instructional day and were likely to follow a

standardized sequence from packaged materials or continue with activities that were done during the regular reading class.

SUMMARY OF QUALITATIVE ANALYSIS

The qualitative data analysis yielded consistent results across four characteristically different schools indicating that the responses are transferable to many schools within this district. Teachers and administrators felt constrained by the requirements of the reading intervention program during the school day, largely due to the difficulty in working with a small-group of students for thirty minutes each day when the teachers perceived that they were already too limited in the amount of reading or ELA time allotted for instruction. Teachers were overwhelmingly reluctant to implement small-group reading instruction and owed their reluctance to time, lack of knowledge, and lack of professional development in how to teach in small-group formats.

In contrast to reading intervention during the school-day, the extended-day reading program was perceived as an essential component of their schools that breathed life into their efforts to help children pass the reading TAKS. The goal of children passing the reading TAKS superseded all other instructional goals for reading, whether informants were discussing regular reading instruction, reading intervention, or extended-day reading.

Perhaps the most significant finding of my qualitative data collection and analysis was in the dedication that teachers and administrators had for their students. While they may have reported that they did not follow district guidelines to the letter, they were deeply conflicted about how to best ensure their students' success and still follow mandates. They were highly invested in their students' being successful and went to great lengths in their generosity of time, both compensated and uncompensated. Their noble effort shone through their admissions of guilt at "bending the rules" and their hearty resilience gave them fortitude to continue with their best effort despite any support that may have been lacking. In chapter two, I included a discussion of culturally-relevant pedagogy through the work of Gloria Ladson-Billings (1994, 1995) in which she coded teachers who have rejected institutional structures in order to meaningfully engage students as successful teachers. The teachers in this study have also rejected the guidelines of the institution, at least for the implementation of reading intervention and extended-day reading, yet they differ from the teachers who engage in culturally-relevant pedagogy. Although the teachers and principals in Clover ISD have the success of their students at the center of their enormous effort, it must be noted that their adaptation of curriculum and instruction does not conform with a strict interpretation of culturally-relevant pedagogy in which the students' connection to the content is paramount. However, the spirit described by Ladson-Billings (1995) in terms of teachers identifying strongly with their ability to impact children certainly describes the teachers in this district.

In the following chapter, I will discuss the interplay of findings from the quantitative and qualitative analysis and how they combine to create a holistic view of reading intervention and extended-day reading programs in this district, limitations of this study, and suggestions for further research.

CHAPTER FIVE – CONCLUSIONS AND DISCUSSION

Successful reading has long been recognized one of the most important outcomes of elementary schooling. Intervening with students who are struggling readers has gained prominence in the last decade due to policy initiatives that state on-grade level reading as a goal, increased accountability for elementary schools using paper-and-pencil tests, greater inclusion of students identified as special needs in regular education classrooms, and larger numbers of students who speak a language other than English participating in United States schools. This study examined reading achievement outcomes associated with the provision of reading intervention and extended-day reading in one school district and the processes of teachers and principals as they work with struggling readers in four

representative elementary schools. Quantitative and qualitative data were gathered to specifically address the following research questions:

1. Does participation in reading intervention and extended-day programs significantly narrow the gap between students who are identified as at-risk for reading difficulty and students not identified as at-risk for reading difficulty?
2. What are the features of reading intervention and extended day as implemented in various schools in a Texas school district?

I gathered test data for one cohort of students beginning in third grade as they progressed through fourth and fifth grade including information about students' ethnicity, LEP program participation and identification and participation in reading intervention and extended-day reading programs. I used purposive sampling to select four campuses in the district to represent the district based on characteristics of each school's population, the provision of transportation, and student achievement scores. In addition to interviewing the district's Reading and English/Language Arts coordinator, I interviewed two intermediate grade teachers and the principal at each of the selected schools. Summaries of the quantitative and qualitative data collections will be presented in the following sections.

FINDINGS FROM THE QUANTITATIVE DATA ANALYSIS

The intent of conducting mixed methods research was so that each form of data collection and analysis could inform the other. However, some understandings of reading intervention and extended-day reading can be derived from the quantitative analysis alone. The following findings will be discussed in greater detail in this section:

- Most students in this district tend to pass reading TAKS, however students who were identified and served with reading intervention at any point in three years did not perform as well as their non-identified age peers within the year of identification.
- Students who were identified for reading intervention for one, two, or three years did not perform similarly to their non-identified age peers over time as measured by standardized fifth grade reading achievement measures.
- Students identified for reading intervention were more responsive to intervention than students identified in fourth grade or fifth grade as measured by passing standardized measures of reading achievement.
- Predictors of fifth grade reading TAKS performance included third and fourth grade reading TAKS scores, participation in third grade reading intervention, participation in fifth grade reading intervention, greater or less than 40th percentile rank on reading ITBS, and student ethnicity.

My dual roles as a campus-based administrator and as a researcher influenced me to analyze the quantitative data to determine both practical and statistical significance. Much in the way that many campus-based and central office administrators examine data, I attempted to determine whether participation in the reading intervention and extended-day reading programs was associated with passing the statewide measure of reading achievement. Most students in third through fifth grade in this district, regardless of identification for intervention, meet the passing standard on their grade level reading TAKS test, so it must be noted that the district is successful in terms of the state's accountability system in terms of the percentage of students who pass the reading TAKS. Despite meeting the state's definition of success, a percentage of students do not pass each year and the percentage of students who did not pass the first administration of reading TAKS increased from a modest ten percent of third grade students to almost twenty percent of fifth grade students.

Within-Year Performance

I addressed reading intervention and outcomes on standardized measures of reading achievement within the 2003-2004, 2004-2005, and 2005-2006 school years and longitudinally between 2003 and 2006. For each year's group of students who failed the first administration of the reading TAKS, about half were students who had been identified for reading intervention and extended-day reading. Students who were identified for reading intervention and served with either reading intervention during the school day or with reading intervention and extended-day reading were likely to have passed the first administration of the third grade reading TAKS. Students who were

identified and served in fourth grade fared much poorer with only about a third of identified students passing the reading TAKS.

Performance over Time

I also examined long-term outcomes for practical and statistical significance. As expected, students who were identified for only one year had much higher scores on both the fifth grade reading TAKS and the fifth grade reading ITBS. Students who were identified all three years of the study had very low outcomes on both assessments. This can be interpreted to indicate that students who have only one year of identification for intervention, regardless of whether they are identified in third, fourth, or fifth grade, can demonstrate reading proficiency with intervention. Students with either two or three years of identification tended to be unable to demonstrate reading proficiency on the measures of reading achievement in this study. I used passing standards to conduct practical significance analysis and comparisons between groups on measures of reading achievement to conduct statistical significance tests.

Single-Year versus Multiple-Year Identification

I used data analysis methods to confirm whether or not there were differences between group performance over time and whether or not multiple variables could be used to predict outcomes on a measure of reading achievement. There was a statistically significant main effect of years of intervention on reading TAKS, indicating that even though students who were identified for one year were able to meet the proficiency standard, they still did not perform at a level similar to their non-identified peers.

Students who were identified for two or three years performed significantly different from their peers who were identified for only one year or not identified at all.

For students who are identified and participate in reading intervention and extended-day reading for only one year, the intervention appears to be sufficient to support students in passing the statewide measure of reading achievement although it does not enable them to perform similarly to students who are not struggling readers. Students who were identified for two or three years did not perform as well and their needs for remediation appear to be greater than what reading intervention and extended-day reading was able to provide.

Predictors of Fifth Grade Achievement

A multiple regression model was developed that included third and fifth grade intervention participation in conjunction with prior reading TAKS performance, ethnicity, and reading ITBS performance to predict outcomes on the first administration of the fifth grade reading TAKS. Identification for intervention in fourth grade and LEP status were eliminated from the model because they were not significant predictors when other variables in the model were present. The district in the study may consider using the regression model or a combination of other factors for expanding the identification criteria as that was identified as an area of concern in the findings in the qualitative data analysis discussed in the following section.

FINDINGS FROM THE QUALITATIVE DATA ANALYSIS

As some findings emerged from the quantitative data collection and analysis alone, the qualitative data collection and analysis yielded independent findings. The following findings will be discussed more fully in this subsection.

- Neither teachers nor administrators displayed dedication to the implementation of reading intervention during the school day as designed by the district to include targeted instruction for 30 minutes on a daily basis in groups no larger than six students.
- Teachers did not articulate skills or knowledge that would enable them to implement small-group instruction.
- Reading instruction has been reduced to TAKS preparation and does not include varied use of instructional strategies.
- The principal, as the instructional leader, sets the limits for the extent of program implementation rather than the district.

Four elementary campuses were selected for participation in the case study using purposive sampling based on their size, use of transportation, and percentages of students who were Limited English Proficient or economically disadvantaged. At each campus, I interviewed the principal and two intermediate grade teachers who taught reading and extended-day reading. I used a semi-structured interview protocol and each interview took approximately one hour. To obtain the district perspective, I interviewed the Coordinator for English Language Arts and Social Studies for the district and referenced memoranda and other documents collected between 2003 and 2006. The interview

protocols were designed to specifically address questions of teacher knowledge and practice, professional development, and the role of campus-based leadership in implementing intervention.

Dedication to the Intervention

Teachers and principals admittedly do not implement the reading intervention as it is designed, in terms of providing targeted instruction only to students who have been identified and daily, 30-minute sessions. Reading intervention is designed by the district to be provided by the classroom teacher during the English or Spanish Language Arts instructional period for thirty minutes each day in a group size no larger than six. Teachers and principals reported that they implement a variety of strategies to ensure that struggling students (as defined by the teachers rather than the intervention criteria) are successful on the standardized measure of reading in the state.

Each of the teachers whom I interviewed had developed two lists in regard to reading intervention. One list was "official" and was submitted to the district. The other list was composed of students who were truly struggling, according to the teacher. Materials, teacher pay for extended-day reading, and training resources had been provided for conducting intervention with the official list of students, but this left teachers and principals with a secondary group of students whom they believed were more accurately in need of intervention but for whom they did not have substantial resources to commit to serving. For this reason, each of the schools had developed mechanisms for conducting tutoring outside the parameters of the district-mandated

reading intervention during the school day and beyond the extended-day reading program. I gathered evidence that there are at least three reasons that reading intervention is not implemented in alignment with district guidelines: 1) teachers' skills and knowledge, 2) narrowed curriculum, and 3) the role of the principal.

Skills and Knowledge

Professional development and teacher knowledge are inadequate to implement reading intervention as it is designed in two major areas. Teachers lacked understanding about how to manage students in the classroom while they worked with one small group. Teachers who had experience as a kindergarten, first, or second grade teacher tended to have greater understanding of centers-based instructional management strategies, but still did not interpret those methods as completely relevant to their current position as intermediate teachers. Teachers did not see the congruence between small-group instruction and achieving passing TAKS scores as an outcome. How to teach reading in a small group is the second area in which teacher knowledge was lacking. Teachers who reported that they used small groups spoke consistently about using the same activity in the small group as was used with the remainder of the class. Small-group instruction was considered a grouping strategy for locating children in the room rather than a viable instructional strategy for differentiating instruction according to student needs. They attributed their lack of differentiation to pressure to ensure that all students meet the same end standard.

Narrowed Curriculum

The reading TAKS has narrowed the curriculum and diminished varied use of instructional strategy. Teachers reported consistent use of published materials that are intended to replicate the reading selections on the TAKS so that students have extensive opportunity to practice the skills assessed by TAKS, resulting in fewer opportunities for students to engage with authentic literature. Additionally, the pressure to have all students attain passing or commended scores on the reading TAKS has resulted in the teachers in this study relying heavily on whole-group instruction to the exclusion of other grouping strategies. Teaching in this climate has been shifted from teaching the child to teaching the content, and the content is clearly how to pass the reading TAKS.

Not only does the reading TAKS impact the provision of reading intervention and extended-day reading, it permeated each of the discussions about strategies for reading instruction in general as well as the purpose of teaching reading, and the goals for student achievement in reading. Reading intervention during the school day focuses greatly on TAKS performance and teachers tend to narrow the intervention curriculum to TAKS-based practice materials. Extended-day reading was exclusively TAKS-preparation based to the extent that the content of extended-day was aligned with the upcoming TAKS. For at least two schools, extended-day reading only existed up until the administration of the reading TAKS when the instructional content shifted to math, the next TAKS on the calendar.

The Role of the Principal

The principal set the tone, intent, and extent of implementation of instructional programs. Teachers consistently responded in alignment with their principals. There were no instances when the teachers' responses to interview questions contradicted their principal's responses. Teachers explicitly related the instructional choices they made regarding content, materials, and grouping strategy to their interpretation of their principal's thoughts and mandates regarding reading instruction. For example, in a building where the principal de-emphasized small-group reading instruction, the teachers reported even less usage than in the other buildings. Principals did not mandate small-group reading intervention and did not provide evidence that they monitor the use of small-group intervention in reading so teachers were liberated from the district requirements because they had the support of their principals to teach as they saw fit.

MIXED METHODS SUMMARY OF FINDINGS

In this study, I used a sequential mixed methods design in which each methodological phase of the research could inform the other. I completed the quantitative data collection phase first and conducted preliminary statistical analysis in order to inform the qualitative data collection phase. I used the preliminary findings to enhance the interview protocols so that respondents could specifically address questions that arose during the first methodological phase. After the qualitative data collection was complete and analysis was conducted, I returned to the quantitative data to complete analysis and pursue directions indicated by the interview informants. One clear finding emerged from the mixed methods analysis:

- The process for identifying students for reading intervention is likely too broad in third grade and too narrow in fourth and fifth grade.

Third grade teachers strongly suggested that the phonics tasks (which the teachers referred to as spelling) of TPRI were not accurate predictors of success on the third grade reading TAKS, but that the word-per-minute fluency score and the comprehension score were more useful in identifying struggling readers. I returned to the quantitative data to investigate their assumption. Indeed, fluency scores and comprehension scores each had main effects on outcomes on the third grade reading TAKS.

Third grade teachers additionally provided anecdotal evidence that third grade students are over-identified for intervention, and the district numbers affirm that a larger group of students are identified in third grade. However, the highest percentage of identified and non-identified third grade students passed the reading TAKS. One conclusion is that the identification process in third grade works to bring attention to students who struggle in reading as was suggested by the principals and students receive extra attention from their teachers as well as additional time and resources from other school personnel. Alternately, since third grade students overall have the highest percentage of students passing the first administration of the reading TAKS, it could be concluded that an element of third grade instruction or curriculum accounts for the high level of success with students identified for reading intervention. The high rates of identification in third grade do appear to tax the third grade teachers because they do not

have appropriate time allotted to intervene with multiple small groups for thirty minutes within each ELA period.

The practical and statistical analyses were moderately inconclusive. Although this dissertation research did not aim to determine causal links or effectiveness indices between an instructional input and educational outcome, it must be acknowledged that the reported absence of small-group instruction makes any outcomes based on the provision of small-group instruction highly variable. Outcomes associated with extended-day reading, however, can be attributed with more confidence to the provision of service if we assume that extended-day reading was carried out with the same dedication as reported in this study. The teachers reported that they did not have a high degree of fidelity to implementing the reading intervention. If the teachers are not implementing the intervention as was intended by the school district, yet the statistical analysis demonstrated that participation in reading intervention and extended-day reading does indicate that students pass the reading TAKS as in third grade, then we cannot conclude that participation in intervention programs is what is causing students to pass. However, we can neither conclude that if these same students did not participate in intervention programs then they would still pass reading TAKS. Future research could be conducted with a control group so that conclusions could be drawn regarding the isolated effect of reading intervention on student success on standardized measures of reading.

LIMITATIONS

The key limitation to the project is in its quasi-experimental design. Since the project describes the progress of an extant intervention program, the subjects were not randomized into treatment groups. Due to non-randomization, group size differentials were not controlled except through statistical analysis. Although I did have a substantial number of subjects for the quantitative research design, it would have improved the study to control for the number of subjects who received treatments. I believe that it would have been unethical to deny a student the opportunity to participate in a treatment group that may have benefits and would only rarely have had negative effects.

An additional limitation may be interpreted since gains in reading achievement would be expected with any group through the provision of additional time and instruction in reading. However, the goals of this analysis were to determine the patterns of reading achievement over time for various groups of students.

The lack of specific types of data is a third limitation. Data were not analyzed based on student gender or on socio-economic status due to limitations in data collection. Texas Primary Reading Inventory (TPRI) scores were only collected on students who were identified for reading intervention in the first year limiting the potential to compare non-identified and identified students on this particular measure. Another data point of interest was bilingual or ESL program participation for each year of the study rather than the LEP identifier for all years of the study that was available.

This study began exclusively as a quantitative study. I soon realized that I could not accurately and responsibly tell the story of reading intervention and extended-day

without the voices of the teachers and principals who face and overcome the challenges of ensuring that struggling readers experience success, so I expanded my data collection to include interviews at four of the schools in the district. Since the interviews yielded highly consistent responses, I believe that the four campuses and twelve educators accurately represented the types of issues faced within the district as well as across the state. Given more time and resources, I would have collected survey data to get a broader picture of the nature and frequency of challenges faced by teachers or conducted observations of reading intervention in classrooms to enrich the story of small-group reading instruction and what it means for so many children.

All data and representations of data are limited by the scope and lens of the researcher. I have continually striven to accurately represent the students, teachers, and principals of this district. As an educator within the district myself, I must admit that it was often difficult to suppress my expectations about what the data would yield. I submit that my role in the district as an assistant principal was one of the more difficult limitations to overcome as I struggled with the ethical dimensions of representing my colleagues fairly and accurately. I did not adequately consider the ramifications of my responsibility to report even negative findings, either to myself or to the teachers and principals who participated. In the end, I believe I have taken some risk in conducting and reporting this research to the best of my abilities and fervently hope that the findings aid improvement efforts without castigatory effects.

IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

This study contributed to the field of reading research because it examined the outcomes and processes of a school district's large-scale reading intervention program that was derived from a statewide policy initiative that was designed to improve reading achievement and reduce retention in grades three, four, and five. This study provides a glimpse into the nature of program implementation in a large, public school district as well as contributes to the body of research on teacher knowledge and practice in reading intervention. This study carries implications for the fields of teacher education and reading instruction, as well as for school districts where reading, teachers, and students come together in practical terms.

The teachers who were nominated and participated in this research were considered to be successful teachers by their school principals and had varying years of experience from alternative and traditional teacher education programs, yet they commonly failed to articulate their knowledge regarding the effective use of small-group instructional strategies. It was beyond the scope of this research to determine whether teachers once had understanding of how to implement small-group instruction and it has been obliterated by a safe approach to obtaining high passing rates on standardized tests or whether the teachers' knowledge was limited or only theoretic in the first place. However, it is clear that small-group instruction, when conducted, was more grouping strategy than instructional strategy as teachers reported that they maintained the same content despite whole-group or small-group instruction. Teacher education and professional development providers must evaluate how teachers become prepared to use

varied instructional strategies beyond grouping arrangement, specifically in terms of how students who need intervention are served. While the teachers reported that they did not consistently utilize small-group instruction for identified students, the same students were performing below their non-identified peers.

The sad implication for reading instruction in the climate of high-stakes testing is that reading is disappearing as an authentic enterprise in classrooms to be replaced with fabricated, test preparation materials. Should the high-stakes testing mantra continue, broad-based reading instruction that addresses the multitudinous and complex interactions between readers and texts faces extinction. Only those skills related to reading that can be tested will be valorized and protected within classroom walls.

Contemporary school districts in Texas and across the nation are locations where programs proliferate to address a host of perceived inadequacy. The greatest lesson to be garnered from this research regarding program implementation is the essential role of the principal in driving dedication to the intervention or program from those who enact the service. The teachers received support, advice, and permission to modify the intervention implementation from their principals.

Given that this study demonstrated that students who are identified for one school year tend to have more success in measures of reading achievement and students identified for multiple years fared more poorly, I see a need for further research in how to remediate intermediate grade students and students who consistently do not respond to typical forms of intervention. There is a substantial body of research about how to address the needs of students with diagnosed or severe learning disabilities through

instructional and curricular programs or practices. The students in this study who were identified for multiple years, however, were not students with diagnosed severe learning disabilities or they would have participated in an alternate assessment program.

RECOMMENDATIONS

The literature review revealed consistent evidence that small-group intervention is the most effective strategy for improving students' reading skills on outcomes of reading achievement. The pervasive lack of small-group instruction spoke not to teachers refusing to utilize effective strategies, but to the lack of professional development to create change and build teachers' knowledge about how to manage and instruct using small groups. Predominantly, teachers and principals did not see how small-group instruction would be effective in achieving their goals for reading instruction, which were based on students' performance on the reading TAKS. To achieve that end, campuses have elaborate schemes that include extended-day reading, pull-out tutoring during the school day, and additional tutoring before and after school or on Saturday for addressing the needs of students who the teachers perceive are struggling readers. I recommend that the district invest in professional development for intermediate grade teachers on how to manage small-group instruction, strategies for teaching in a small-group format, and the content of reading instruction with a caveat that pull-out professional development during the school day not be the exclusive delivery option. Teachers were consistently aware of training that was made available to them but were not electing to attend it either because they viewed it as materials-based or because it was provided at times they felt were not

feasible for their attendance. These two factors should be given considerable attention by the district in designing professional development.

The process for identifying struggling readers in the intermediate grades also warrants further investigation within the district. Although predicting human behavior can never be a perfect science, using multiple methods of identification such as teacher discretion may yield increase the accuracy of identifying students for intervention and could eventuate in more focused service delivery.

As Allington (1995) has already argued, I found considerable evidence to recommend the coordination of service delivery. The teachers and principals perceived reading intervention and extended-day reading as parts of the same whole. However, the ELA coordinator did not perceive the two programs as continuous which contributed to confusion about the use of materials and program goals. Within the campuses, service delivery could also be more aligned between ESL, special education, and general education teachers. Teachers frequently expressed frustration at students being pulled from the general education setting and their instructional time with struggling students being too short.

SUMMARY

Reading intervention is a critical piece of contemporary educational practice due to the welcome presence of children with all kinds of needs in schools across the country. Helping children learn to read so that they can achieve in school and have greater opportunities is a noble and heavy responsibility that the teachers and principals in this

study took to heart. They cared deeply about their students learning and struggled over the best ways to ensure that their students experienced success. While it is easy to find the elements in any reading program that are not implemented perfectly, the actual job of teaching reading is complex and contextually embedded in nesting, larger systems that offer perhaps too many requirements and not quite enough resources or support. The children of this district had high levels of success in reading achievement outcomes, their teachers and principals worked diligently to ensure that they were successful, and the end result is that reading intervention and extended-day reading contributed to that measure of success but that there can be steps taken toward improvement.

Appendix A – Timeline of the Study Within the Context of State Initiatives

1995 – Recodification of the Texas Education Code

1996 – Social Promotion Repealed in Texas

1997 – National Reading Panel convened

1999 – Student Success Initiative legislation passes
1999 – National Reading Panel reports findings

1999-2000 – First year that kinder, first, and second grade students are administered diagnostic reading tests, identified as at-risk for reading difficulty, and receive accelerated instruction in reading under Accelerated Reading Instruction (ARI)

2001 – Reauthorization of the Elementary and Secondary Education Act known as The No Child Left Behind Act

2002-2003 – First year that third grade students must pass reading TAKS to be promoted

2003-2004 – First year of the study – participants were in third grade

2004-2005 – First year that fifth grade students must pass reading TAKS to be promoted.
2004-2005 – SSI expanded to include Math TAKS as a promotion requirement for fifth grade students.
2004-2005 – Second year of the study – participants were in fourth grade

2005-2006 – Third year of the study – participants were in fifth grade

Appendix B – Interview Protocols

Teacher Interview Protocol

Reading Intervention

1. What grade level and subjects do you teach? How many years have you been teaching this combination of grade level and subject? Are you fully certified to teach in this area?

2. How do you teach reading? Describe a typical day of reading instruction in your classroom.

3. Describe how you implement reading intervention.

4. How do you decide which students will receive reading intervention?

5. What materials have you used with students identified for reading intervention?

6. What training have you attended about reading intervention? How effective was that training in preparing you to conduct reading intervention? Why?

7. Within a typical week, how many minutes do you work in a small group with students identified for reading intervention?

8. What content do you most frequently teach in reading intervention? How do you decide what you will teach to the small group?

9. Describe the way that you manage teaching small groups within the whole class setting.

10. What are the challenges in implementing reading intervention with a group no larger than six students for 30 minutes daily?

11. How effective is reading intervention for helping students who struggle with reading meet grade level standards? How does effectiveness vary for different student groups?

Extended Day

1. Describe a typical afternoon in extended day in your classroom. About how many minutes do you work with students? How many days? How large are the groups? Are you teaching your own students or students who have another primary teacher for reading instruction?

2. Describe how you implement reading intervention during extended day.

3. How do you decide which students will participate in extended-day reading?

4. What materials have you used with students in extended-day reading?

5. What training have you attended about extended day? How effective was that training in preparing you to teach extended day? Why?

6. What activities do you do most frequently in extended day? How do you decide what you will teach to the students?

7. What are the challenges in teaching extended-day reading?

8. How effective is extended day for helping students who struggle with reading meet grade level standards? How does effectiveness vary for different student groups?

Administrator Interview Protocol

Reading Intervention

1. How long have you been an administrator? At this school?
2. How is reading intervention conducted at your campus? Which teachers are primarily responsible for providing reading intervention at grades 3, 4, and 5?
3. What materials do teachers on your campus use for reading intervention?
4. What training is provided for teachers in order to implement reading intervention?
5. How do teachers in your building manage meeting with a small group for 30 minutes daily?
6. What typically happens in reading intervention groups on your campus?
7. How do you monitor teachers implementing reading intervention?
8. How effective is reading intervention for helping students who struggle with reading meet grade level standards? How does effectiveness vary for different student groups?
9. Describe the obstacles you and your campus face in implementing reading intervention. How do you overcome those obstacles?

Extended Day

1. Describe your extended-day program. How do you identify students for participation? When and for what period of time do students participate?
2. What obstacles do you face in implementing extended day at your campus?
3. What materials do teachers on your campus use for extended day?
4. What training is provided for teachers for teaching extended-day reading?
5. What typically happens in extended day on your campus? Instructionally? Programmatically?
6. Do you monitor teachers during extended day? How so?

7. How effective is extended day for helping students who struggle with reading meet grade level standards? How does effectiveness vary for different student groups?

8. Describe the obstacles you and your campus face in implementing reading intervention. How do you overcome those obstacles?

Coordinator Interview Protocol

Reading Intervention

1. Please describe your position and how long you have been in the position.
2. What is your role in implementing reading instruction?
3. Describe the district goals for reading intervention in grades three through five.
4. What is the framework provided by the district for campuses to implement reading intervention?
5. What materials are provided to campuses?
6. What training is provided for teachers?
7. How does the district monitor reading intervention?
8. What is the vision for reading intervention implementation in the district?
9. In what ways do you anticipate that district guidelines for reading intervention will be modified or altered as campuses implement the program?
10. What obstacles does the district face in implementing reading intervention?
11. How effective is extended day for helping students who struggle with reading meet grade level standards? How does effectiveness vary for different student groups?

Extended Day

1. What is your role in implementing extended-day reading programs?
2. Describe the district goals for extended-day reading in grades three through five.
3. What is the framework provided by the district for campuses to implement extended-day reading?
4. What materials are provided to campuses?

5. What training is provided for teachers?

6. How does the district monitor extended-day reading?

7. What is the vision for extended-day reading implementation in the district?

8. In what ways do you anticipate that district guidelines for extended day will be modified or altered as campuses implement the program?

9. What obstacles does the district face in implementing extended day?

10. How effective is extended day for helping students who struggle with reading meet grade level standards? How does effectiveness vary for different student groups?

Appendix C – Analysis Matrices

District Level Matrix – READING INTERVENTION

ROLE	Goals	Instructional Method	Student Selection	Materials	Training	Content	Management / Organization	Challenges	Effectiveness
Current Coordinator									
Principal – Kodiak									
Principal – Stone									
Principal – Verne									
Principal – All-Star									
Teacher 1 – Kodiak									
Teacher 2 – Kodiak									
Teacher 1 – Stone									
Teacher 2 – Stone									
Teacher 1 – Verne									
Teacher 2 – Verne									
Teacher 1 – All-Star									
Teacher 2 – All-Star									

District Level Matrix – EXTENDED DAY

ROLE	Goals	Instructional Method	Student Selection	Materials	Training	Content	Management / Organization	Challenges	Effectiveness
Current Coordinator									
Principal – Kodiak									
Principal – Stone									
Principal – Verne									
Principal – All-Star									
Teacher 1 – Kodiak									
Teacher 2 – Kodiak									
Teacher 1 – Stone									
Teacher 2 – Stone									
Teacher 1 – Verne									
Teacher 2 – Verne									
Teacher 1 – All-Star									
Teacher 2 – All-Star									

School Level Matrix – READING INTERVENTION

ROLE	Goals	Instructional Method	Student Selection	Materials	Training	Content	Management / Organization	Challenges	Effectiveness
Kodiak – Principal									
Kodiak – 3rd Gen Ed									
Kodiak – 3rd Bil Ed									
Stone – Principal									
Stone – Teacher 1									
Stone – Teacher 2									
Verne – Principal									
Verne – Teacher 1									
Verne – Teacher 2									
All-Star – Principal									
All-Star – Teacher 1									
All-Star – Teacher 2									

School Level Matrix – EXTENDED DAY

ROLE	Goals	Instructional Method	Student Selection	Materials	Training	Content	Management / Organization	Challenges	Effectiveness
Kodiak – Principal									
Kodiak – 3rd Gen Ed									
Kodiak – 3rd Bilingual Ed									
Stone – Principal									
Stone – Teacher 1									
Stone – Teacher 2									
Verne – Principal									
Verne – Teacher 1									
Verne – Teacher 2									
All-Star – Principal									
All-Star – Teacher 1									
All-Star – Teacher 2									

Appendix D – Correlation Matrix for Multiple Regression Analysis

	2004 TAKS Raw Score	2005 TAKS Raw Score	2006 TAKS Raw Score	3rd Grade Not Served	3rd Grade RI	3rd Grade RI + ED	5th Grade Not Served	5th Grade RI	5th Grade RI + ED	ITBS Greater than 40 NPR	Native American	Asian	African American	Hispanic
2004 TAKS Raw Score	1.000													
2005 TAKS Raw Score	0.652	1.000												
2006 TAKS Raw Score	0.642	0.700	1.000											
3rd Grade Not Served	-0.109	-0.073	-0.064	1.000										
3rd Grade RI	-0.039	-0.050	-0.054	-0.017	1.000									
3rd Grade RI + ED	-0.254	-0.265	-0.272	-0.046	-0.089	1.000								
5th Grade Not Served	-0.077	-0.100	-0.082	-0.008	-0.015	0.028	1.000							
5th Grade RI	-0.132	-0.228	-0.203	-0.012	0.020	0.068	-0.011	1.000						
5th Grade RI + ED	-0.472	-0.691	-0.491	0.050	0.040	0.174	-0.032	-0.051	1.000					
ITBS Greater than 40 NPR	0.477	0.515	0.513	-0.057	-0.069	-0.247	-0.060	-0.129	-0.363	1.000				
Native American	0.020	0.005	0.018	-0.007	-0.013	0.000	-0.006	-0.009	0.001	0.039	1.000			
Asian	0.012	0.075	0.046	-0.027	-0.017	-0.024	-0.025	-0.011	-0.043	0.068	-0.021	1.000		
African American	0.004	-0.021	-0.041	-0.028	0.002	0.031	-0.012	-0.011	0.004	-0.023	-0.029	-0.121	1.000	
Hispanic	-0.279	-0.266	-0.262	0.076	0.074	0.069	0.045	0.041	0.190	-0.301	-0.058	-0.242	-0.341	1.000

Appendix E – Summary of the Texas Accountability System

The Texas Education Agency (TEA) annually rates individual public and charter schools and districts based upon performance on the Texas Assessment of Knowledge and Skills (TAKS), State-Developed Alternative Assessment (SDAA), completion rate, and annual drop-out rate. Elementary campuses are rated only on TAKS and SDAA performance of the campus-level accountability subset. Campuses and districts may be rated as Exemplary, Recognized, Acceptable, Academically Unacceptable, Not Rated: Other, and Not Rated: Data Integrity Issues. Each year, TEA determines a snapshot date in October. Students who are enrolled at the campus on the snapshot date and take the TAKS or SDAA on that campus in the spring are part of the campus-level accountability subset used to determine the campus rating.

Elementary campuses earn a rating based on the percentage of students who pass the third, fourth, and fifth grade reading TAKS and SDAA, third, fourth, and fifth grade math TAKS and SDAA, fourth grade writing TAKS and SDAA, and fifth grade science TAKS. A fifth grade science SDAA was not developed prior to 2007. The entire subject group as well as subgroup performance is evaluated to determine the rating. If a school has thirty participants, between 31 and 49 participants who comprise 10% of all test-takers or fifty participants who are white, Hispanic, African-American or Economically Disadvantaged, then the school will be evaluated on the performance of the student group in addition to the whole group performance. For example, if a school had 28 African-American students who took the reading TAKS in grades three, four, or five, the campus

would not be evaluated for a rating based on those students' passing rate distinct from the whole group because the campus did not meet the minimum size requirement. However, those 28 students would still be included in the passing percentage of the whole group's reading TAKS performance to determine the rating for the campus.

Each of the aforementioned ratings represents a range of passing percentages on TAKS and SDAA for the whole group and subgroups based on the campus population. SDAA is a test administered to students in special education as determined by the Admission, Review and Dismissal committee who determines an achievement level for the student. If the student meets or exceeds the achievement level, the student has "met expectations" which is roughly equivalent to passing the TAKS. The following table demonstrates the percentage of students passing or meeting expectations needed to earn a particular rating for elementary schools between the years 2004-2006. A passing percentage of less than the Acceptable range would qualify a school as Academically Unacceptable.

Table 15 – Summary of Passing Rates by TAKS Subject and Accountability Rating

	Acceptable			**Recognized**			**Exemplary**		
Year	**2004**	**2005**	**2006**	**2004**	**2005**	**2006**	**2004**	**2005**	**2006**
TAKS Reading	50%	50%	60%	70%	70%	70%	90%	90%	90%
TAKS Math	35%	35%	40%	70%	70%	70%	90%	90%	90%
TAKS Writing	50%	50%	60%	70%	70%	70%	90%	90%	90%
TAKS Science	25%	25%	35%	70%	70%	70%	90%	90%	90%

SDAA	50%	50%	50%	70%	70%	70%	90%	90%	90%

Campuses are eligible to be considered for Gold Performance Acknowledgments if the campus is rated Academically Acceptable or higher, has results to be evaluated, and has met the criteria for acknowledgment. The Texas Education Agency awards Gold Performance Acknowledgments to elementary campuses based upon attendance, commended performance on TAKS, and comparable improvement on TAKS. Elementary campuses that have at least 97% of students in attendance who are enrolled may receive a Gold Performance Acknowledgment for attendance.

Students who achieve above a scale score of 2400 on any individual TAKS are considered to have achieved commended performance. If a campus has 20% of the test-taking population and 20% of each subgroup that meets the minimum size requirement earn a scale score of 2400 or above, then the campus may receive a Commended Gold Performance Acknowledgment. Commended performance awards are granted by each individual subject, so there are four possible awards: Reading, Writing, Math, and Science.

A Texas Growth Index (TGI) is calculated for students on the reading and math TAKS based on the amount of the individual's growth on TAKS performance from the previous year's administration. If a campus is in the top quartile, then the campus may receive a Comparable Improvement Gold Performance Acknowledgment. The Comparable Improvement awards are calculated only for reading and math and consider only whole group performance.

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Vita

Jennifer Rhea Porter was born in Dallas, Texas on May 13, 1976, the daughter of John Wallace Porter and Debra Rhea Porter. After completing her work at Forney High School in Forney, Texas in 1994, she entered Texas Tech University in Lubbock, Texas where she received the degree of Bachelor of Science in 1997. She entered Teachers College, Columbia University in New York, New York in 2000 where she received the degree of Master of Arts in 2001. When she returned to Texas in 2001, she enrolled in the University of Texas at Arlington where she completed her mid-management certification in 2002. During the following years she was employed as an assistant principal at John W. Armstrong Elementary in the Garland Independent School District. In June 2004 she entered the Graduate School of The University of Texas.

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