

EARLY LITERACY: AN EXAMINATION OF THE PRINCIPAL BEHAVIORS THAT  
IMPACT READING ACHIEVEMENT

Brenda Baker, BSE, M. Ed

Dissertation Prepared for the Degree of  
DOCTOR OF EDUCATION

UNIVERSITY OF NORTH TEXAS

December 2003

APPROVED:

Carrie Ausbrooks, Major Professor

James Laney, Minor Professor

John Dowd, Committee Member

John Brooks, Program Coordinator

John Stansell, Chair of the Department of Teacher  
Education and Administration

M. Jean Keller, Dean of the College of Education

Sandra L. Terrell, Interim Dean of the Robert B.  
Toulouse School of Graduate Studies

Baker, Brenda , *Early Literacy: An Examination of the Principal Behaviors That Impact Reading Achievement*, Doctor of Education (Educational Administration), December 2003, 135 pp., 9 tables, 3 figures, references, 110 titles.

Literacy is fundamental to formal education, learning, and training for future career related skills. It provides not only the means of acquisition of information and skills during schooling, but it is a vital predictor of a person's general level of education in school as well as successful completion of schooling. Literacy skills serve as the major foundational skill for all school-based learning and without it, chances for academic and occupational success are limited. Despite the efforts of teachers, a significant portion of students continue to fail to achieve success in early literacy in school, with severe consequences for their subsequent educational progress, career opportunities and life chances. The extent of this problem varies throughout school systems. All of our children are affected by their reading ability, and as educators it is critical to provide for all students the most effective literacy programs and strategies which are research based, data-driven and successfully replicated. Because of the psychological, social and economic consequences of reading failure, it is critical to review the research to determine the risk factors that may predispose youngsters to reading failure, and the instructional practices that can be applied to ameliorate reading deficits at the earliest possible time.

The failure to achieve in literacy is a fact, which continues to carry dire social and economic consequences for the children, as well as for this society. Furthermore, there is a substantial body of research indicating that schools have a narrow window of opportunity to make a difference. Students who fail to make progress in literacy during the first two years of school rarely catch up with their peers and are at-risk of becoming low achievers who are alienated from school and who dropout of education at the earliest opportunity. On the other

hand, impressive empirical evidence is now available to support the notion that failure to make progress in literacy is preventable for all except a very small portion of children.

This study reviews the relationship between the principal's knowledge of early literacy and student achievement in reading by the third grade. It will also describe the causal factors that may predispose young children to reading difficulties, as well as the instructional programs and teacher strategies that can be implemented to ameliorate the difficulties.

Quantitative and qualitative methodologies are used to analyze the data. Narratives, tables and figures are used to further enhance the research.

## ACKNOWLEDGEMENTS

Sincere appreciation is extended to Dr. Frank Kemerer for his vision and diligence in bringing distance learning to the doctoral program. His leadership and consistent support of Cohort I have made his vision a reality for not only me, but for many others as well. Special appreciation is given to my doctoral team; Dr Carrie Ausbrooks, my major professor, committee members, Dr. James Laney, and Dr. John Dowd. Thank-you, Dr. Ausbrooks, for your clear articulation of administrative leadership that affirmed my own leadership philosophy. Thank-you, Dr. Laney, for your insight into the curricular, and instructional strategies that make academic success possible for all students. Thank-you, Dr. Dowd, for sharing your time, your knowledge of my topic, your patience and for your unwavering support throughout the dissertation process. A grateful note of recognition is extended to the faculty of the University of North Texas. They embraced distance learning and made it a powerful experience for each of us. Genuine appreciation is also extended to Robin Atteberry. Her knowledge, support, and professionalism throughout this process were invaluable. A final note of appreciation is shared with the members of Cohort I, Shelley Sweatt, Vicki Holland, Jan Bennet, and Johney Chandler.

On a personal note, thank-you to my supportive family; my husband Tommy, and my daughters, Kellie McCord and Kristen Perry for their love and encouragement. Special thanks to Kellie for her technical assistance throughout the project.

## TABLE OF CONTENTS

LIST OF TABLES.....	v
LIST OF FIGURES.....	vi
Chapter	
I    INTRODUCTION.....	1
Statement of the Problem.....	3
Research Questions .....	6
Research Hypothesis.....	6
Definition of Terms.....	7
Significance of the Study.....	13
Limitations.....	14
Organization of the Dissertation.....	15
II    REVIEW OF THE LITERATURE.....	17
Causal Factors.....	18
Instructional Procedures/Teacher Behaviors .....	31
Principal behaviors.....	48
Summary.....	60
III   RESEARCH METHODOLOGY.....	61
Research Population.....	62
Research Design/Methodology.....	71
Data Analysis.....	78
Summary.....	81
IV   PRESENTATION AND ANALYSIS OF DATA.....	83

	Research Questions and Hypothesis.....	83
	Quantitative Analysis.....	84
	Qualitative Analysis.....	91
	Summary.....	98
V	SUMMARY, RECOMMENDATIONS, and CONCLUSIONS.....	99
	Summary.....	102
	Recommendations/Implications.....	107
	Conclusions.....	110
	APPENDIX A –Administrator Questionnaire.....	115
	APPENDIX B- Administrator Interview.....	123
	REFERENCE LIST.....	125

## LIST OF TABLES

Table 1.	1999-2000 Region IX Demographic Profile.....	64
Table 2.	1999-2000 State of Texas Demographic Percentages.....	65
Table 3.	1999-2000 Disaggregated Student Enrollment.....	65
Table 4.	Respondent Demographic Information.....	68
Table 5.	1998-2000 3rd and Economically Disadvantaged TAAS Scores.	70
Table 6.	Reading Survey Subset Results.....	85
Table 7.	Reading Survey Totals.....	87
Table 8.	Correlations: TAAS/Survey.....	88
Table 9.	Schools Selected for Interviews.....	92

## LIST OF FIGURES

Figure 1.	Texas Reading Leaders Statewide Network.....	72
Figure 2.	Goal for Texas Reading Leaders.....	73
Figure 3.	Rank Order Scatterplot.....	91



## CHAPTER I

### INTRODUCTION

Literacy is fundamental to formal education, learning, training, and success in life. It provides not only the means of acquisition of information and skills during schooling, but it is a vital predictor of a person's level of education in school as well as successful completion of schooling (McGraw, Long, Morgan, & Rosier, 1998). Literacy skills serve as the major foundational skill for all learning and without it, chances for academic and occupational success are limited (Chall, Jacobs, & Baldwin, 1990; Allington & Walmsley, 1995).

There has been no previous time in history when the success, indeed the survival of nations and people has been so tightly tied to their ability to read. Today's society has little room for those who cannot read, write and compute proficiently; find and use resources; frame and solve problems; and continue to learn new technologies, skills and occupations. The economy of high wage jobs for low skilled workers is fast disappearing. In contrast to only 20 years ago, individuals who do not succeed in school in the twenty-first century have little chance of finding a job or contributing to society; and societies that do

not succeed in school have little chance of success in a global economy (National Commission on Teaching and America's Future, 1996, p.1).

Despite the efforts of teachers and administrators a significant portion of students continue to fail to achieve success in literacy in school (Lyon, 1997). These failures result in severe consequences for their subsequent educational progress, career opportunities and life chances.

The extent of this reading problem varies throughout school systems. All children are affected by their reading achievement; and as educators, providing all students with the most effective literacy programs and strategies are critical. The National Committee selected to research the strategies that can be implemented to help prevent reading difficulties in young children (Burns, Griffin, Snow, 1998) found that in our society, the important challenge is to ensure teachers and administrators have access to the knowledge available that will enable children to become literate. "In other words, there is little evidence that children experiencing difficulties learning to read, even those with identifiable learning difficulties, need radically different sorts of support than children at low risk, although they may need more extensive support" (Snow, 1998, p.3). Because of the psychological, social and economic consequences of reading failure, research-based, and data driven, as well as successfully replicated programs are needed (Lyon & Moats, 1997; Pollock, 1996; Kame'enui, 1994). A determination of the risk factors that may predispose young children to reading difficulty, as well as instructional practices that can

be applied to ameliorate reading deficits at the earliest possible time can provide a reliable foundation for early literacy.

#### Statement of the Problem

The focus of this study was to investigate the relationship between principal knowledge of early literacy (and other principal behaviors) and third grade reading achievement. The principals knowledge was measured by the Principals Knowledge of Literacy Questionnaire and the reading achievement was measured utilizing the scores from the reading portion of the third grade Texas Assessment of Academic Skills (TAAS).

One of the major misunderstandings about reading is analogous with what Kame'enui refers to as the "appearance of things" (1996). By all public appearances, reading looks like a fairly easy and natural thing to do. It appears, after all, almost everyone can do it and most seem to read with little or no effort at all. The appearance of reading masks the very real and complex problems involved in the act of reading (Fletcher & Lyon, 1998; Adams, 1994). The technical truth about reading is that it is anything but natural. In fact, reading does not develop incidentally; it requires human intervention (Adams, 1991). A.E. Cunningham (1997) discussed the critical importance of the early environment and experience. He noted in his research that the period of most rapid growth in a child's reading experience is likely to be in the early years. This is then followed by periods of less rapid growth. Kame'enui affirms this idea and states, "Because success in the early stages of reading development predicts later reading

success, it demands our grand commission and conscientious employment” (1996, p. 80). The available research from the National Institute of Health implies that approximately 50 percent of our nations children learn to read relatively easily once exposed to formal instruction, and they tend to learn in any classroom, with any instructional emphasis. However, for the other 50 percent that do not learn, the process is quite difficult (Lyon, 1997).

Literacy achievement among children from low-income families, among non-white children and among non-speakers of English consistently drops below national norms (Gates & Dahl, 1991). The reading assessment results of fourth grade students nationwide from the 1994 National Assessment of Educational Progress (NAEP) revealed an alarming trend. Thirty-two percent of Whites, 72 percent of African Americans, 67 percent of Hispanics, 23 percent of Asians, 36 percent of Pacific Islanders, and 55 percent of American Indians were reading below the fourth grade level (Baker, Kame’enui, & Simmons, 1998). Among African American and Hispanic students, the percentages of these fourth graders reading below grade level respectively translates into 4.5 million African American and 3.3 million Hispanic children reading very poorly in the fourth grade (NAEP, 1994, p.42). Data from the meta-analysis of effective reading programs (Pikulski, 1994) provides additional information. The comprehension score for students in the fall of their first-grade year was at the 50<sup>th</sup> percentile. In contrast, for students in schools where 75 percent of the students are identified for the free and or reduced lunch program, the mean score for these same first graders was at the 44<sup>th</sup> percentile. By the following spring, this difference had expanded significantly. While

children living in poverty tended to fall behind regardless of their initial reading level, the study does indicate such differences are not inevitable (Blackman, 1994) “It is the concentration of poor readers in certain ethnic groups and in poor, urban neighborhoods and rural towns that is most worrisome” (Burns et al., p. 130, 1998). These results would seem to indicate that a national problem in reading exists. The lack of reading skills cannot be solely attributed to poverty, immigration, or the learning of English as a second language (Hart & Riseley, 1995). Furthermore, a substantial body of research indicates that schools have a narrow window of opportunity to make a difference (Crevola & Hill, 1998). For example, very little evidence exists for the success of programs to correct reading problems beyond the second grade (Slavin, Karwirth, & Wasik, 1993). Students who fail to make progress in literacy during the first three years of schooling rarely catch up with their peers and are at risk of becoming low achievers who are alienated from school and who drop-out of education at the earliest opportunity. On the other hand, impressive empirical evidence is now available to support the notion that failure to make progress in literacy is preventable for all except a very small portion of children (Pikulski, 1994).

Despite these heartening findings, the educational careers of 25 to 40 percent of American children are imperiled because they do not read well enough, quickly enough, or easily enough to ensure comprehension of content courses in middle and secondary school.

Although men and women with reading disabilities can and do attain significant levels of academic and occupational

achievement, more typically poor readers, unless strategic interventions in reading are afforded them, fare poorly on the educational and subsequently the occupational ladder. Although difficult to translate in actual dollar amounts, the costs to society are probably quite high in terms of lower productivity, underemployment, mental health services, and other measures (Snow, et al., p.98).

#### Research Questions

Early literacy is a complex issue. In order to formulate a general hypothesis that spans this complex issue – two conceptual questions were addressed in this research.

1. Is there a correlation between administrators who exhibit a high level of instructional leadership and knowledge of the components of an effective early literacy program (as measured by the Principals Knowledge of Literacy Questionnaire) and the reading performance of young students (as measured at the third grade level by the TAAS)?
2. What behaviors are exhibited by principals who lead campuses where students are successful or non-successful in early literacy development?

#### Research Hypothesis

After these two questions were reviewed the hypothesis for this study was developed. A significant, high, positive correlation exists between administrators who exhibit a high level of understanding of the components of an effective early literacy program as measured by a comprehensive reading questionnaire and the academic

reading achievement of third grade students as measured by the Texas Assessment of Academic Skills (TAAS).

### Definition of Terms

The following terms are defined as they relate to this study:

**Alphabetic Principle:**

The assumption that the underlying alphabetic writing systems that each speech sound or phoneme of a language should have its own distinctive graphic representation.

**Analytic Phonics:**

A whole-to-part approach to word study in which the student is first taught a number of sight words and then relevant phonic generalizations, which are subsequently applied to other words; deductive phonics.

**Auditory Blending:**

The ability to fuse discrete phonemes into recognizable spoken words.

**Auditory Discrimination:**

The ability to hear phonetic likenesses and differences in phonemes and words.

**Auditory Processing:**

The full range of mental activity involved in reacting to auditory stimuli, especially sounds, and in considering their meanings in relation to past experience and to their future use.

Basal Reading Program:

A collection of student texts and workbooks, teacher's manuals, and supplemental materials for development of reading and sometimes writing instruction, used chiefly in the elementary and middle school grades.

Blend:

To combine the sounds represented by letters to pronounce a word, an ability to sound out the specific word.

Comprehension:

Comprehension, "the essence of reading", is often taken to mean reading comprehension in the literacy literature unless restricted specifically or by inference from its content.

Concepts of Print:

Familiarity with writing and print conventions, such as left to right, top to bottom sequence of reading; the use of spaces to denote words; the idea that print represents words; an important predictor of learning to read.

Consonant:

A speech sound made by partial or complete closure of part of the vocal tract, which obstructs airflow and causes audible friction in varying amounts.

Consonant Digraph:

A combination of two consonant letters representing a single speech sound, as the for /th/ in that, or gh for /f/ in rough.



Context Clue:

Information from the immediate textual setting that helps identify a word or word group, as by words, phrases, sentence illustrations, syntax, typography, etc.

Decode:

To analyze spoken or graphic symbols of a familiar language to ascertain their intended meaning. Note: To learn to read, one must learn to conventional code in which something is written in order to decode the written message. In reading practice, the term issued primarily to refer to word identification rather than to identification of higher units of meaning.

Digraph:

Two letters that represent one speech sound, as ch for /ch/ in chin or ea for /e/ in bread.

Diphthong:

A vowel sound produced when the tongue moves or glides from one vowel sound toward another vowel or semivowel sound in the same syllable, as /i/ in buy and vowel sounds in boy, and bough.

Emergent Literacy:

Development of the association of print with meaning that begins early in a child's life and continues until the child reaches the stage of conventional reading and writing; the reading and writing concepts and behaviors of young children that precede and develop into conventional literacy.

Fluent Reader:

A reader whose performance exceeds normal expectation with respect to age and ability; independent reader.

Frustration Reading Level:

A readability or grade level of material that is too difficult to be read successfully by a student even with normal classroom instruction and support.

Grapheme:

A written or printed representation of a phoneme as b for /b/ or ou for /oi/ in boy.

Grapheme-Phoneme Correspondence:

The relationship between a grapheme and the phoneme(s) it represents; letter-sound correspondence, as c representing /k/ in cat and /s/ in cent.

Informal Reading Inventory (IRI):

The use of a graded series of passages of increasing difficulty to determine students' strengths, weaknesses, and strategies in word identification and comprehension.

Literacy:

The capacity to accomplish a wide range of reading, writing, speaking, and other language tasks associated with everyday life.

Morpheme:

A meaningful linguistic unit that cannot be divided into smaller meaningful elements, as the wordbook, or that is a component of a word, as (s) in books.

Morphology:

The study of structure and forms of words including derivation, inflection, and compounding.

Phoneme:

A minimal sound unit of speech that, when contrasted with another phoneme, affects the meaning of words in a language, as /b/ in book contrasts with /t/ in tool, /k/ in cook, /h/ hook.

Phoneme Grapheme Correspondence:

The relationship between a phoneme and its graphemic representation(s), as /s/, spelled s in sit, c in city, ss in grass.

Phonemic Awareness or Phoneme Awareness:

Phonemic awareness is the awareness of the sounds (phonemes) that make up spoken words. Such awareness does not appear when young children learn to talk; the ability is not necessary for speaking and understanding spoken language. However, phonemic awareness is important to understand the code of alphabetic languages and letter (and letter sounds). Having phonemic awareness provides some understanding of the notion that words are abstract units made up of phonemes. This insight is not always easily achieved. When one pronounces a word one does not produce a series of discrete phonemes; rather phonemes are folded into one another and are pronounced as a blend. Altogether most young children have no difficulty segmenting words into syllables; many find it very difficult to segment at the phoneme level.

Phonics:

A way of teaching, reading, and spelling that stresses symbol-sound relationships, used especially in beginning instruction

Phonogram:

A graphic character or symbol that can represent a phonetic sound, phoneme, or word.

Phonology:

The permissible part of arrangements of speech sounds in forming morphemes and word; the rules for producing the phonemes in words.

Print Awareness:

In emergent literacy, a learner's growing recognition of conventions and characteristics of a written language.

Semantics:

The study of meaning of a language, as the analysis of the meanings of words, phrases, sentences, discourse, and whole texts.

Sight Word:

A word that is immediately recognized as a whole and does not require word analysis for identification. A word taught as a whole.

Sound Out:

The application of phonics skills in reproducing the sound(s) represented by a letter or letter group in a word.

Syllable:

In phonology, a minimal unit of sequential speech sounds composed of a vowel sound or a vowel-consonant combination, as /a/, /ba/, /ab/, /bab/, etc.

Syntax:

The study of how sentences are formed and have the grammatical rules that govern their information. The pattern or structure of word order in sentences, clauses and phrases.

Visual Discrimination:

The process of perceiving similarities and difference in stimuli by sight.

The ability to engage in such a process.

### Significance of the Study

In the past decade, the move toward heightened accountability and the push to raise academic standards and achievement has placed extraordinary demands on principals. The conceptual shift in the job description of administrators from effective organizational managers to effective instructional leaders occurred in the late 1980s. This metamorphosis was ushered in with limited understanding by principals of the new dynamics of their altered role. This study employed a qualitative and quantitative model designed to address the improvement of early reading instruction through the improvement of instructional leadership practices. There currently exists a gap in the research literature respective of the relationship of how principals manage their leadership for instruction based upon their content knowledge of early literacy and how this knowledge contributes to student performance. This study will add to the research and bridge that gap by providing principals of Title I campuses with a greater awareness

of the behaviors and literacy content knowledge that are strong predictors of reading cognition. In order for the principal to be able to clearly articulate the school's vision for early reading, she must understand the core principles that underlie effective reading instruction as well as visual images of what that effective instruction looks like. An instructional leader must also be able to recognize effective reading instruction when it occurs. Furthermore, the instructional leader must be able to maintain a vision of effective reading instruction when it is not occurring and be able to communicate the gap to the teachers (Senge 1990). The findings in this study will enhance the research regarding the conceptual framework that must exist for a principal to be an effective instructional leader of reading and to communicate a clear vision for the entire instructional program that focuses on early literacy. It is difficult to overstate the critical significance of ensuring children get off to a successful start in early literacy.

#### Limitations

This study is limited to 42 elementary principals of Title I campuses in the North Texas area served by the Region 9 Education Service Center. The elementary schools from the 40 districts selected were similar in demographic features, such as size, diversity, and socio-economic status. Other factors influencing school selection included accessibility to the researcher, the general acceptance of each campus toward school research, and control of extraneous demographic variables such as parents level of education, single or blended families, and homeless students. As a result, the findings may not be generalizable to principals of campuses that do not have the same demographic criteria.

Generalizations of the findings of this study may also be limited by what Borg and Gall (1989) refer to as response effects bias. This bias results as the participants in the research study seek to respond to the survey or during the interview process in a manner they believe will please the researcher. The possibility that the respondents may not complete the entire survey because of its length, or a misunderstanding of some of the questions may also limit the generalizations of the findings.

#### Organization of the Dissertation

This dissertation is organized into five chapters. The first chapter presents a brief overview of the study and a description of the problems.

The second chapter consists of a literature review, as well as some meta-analysis reviews of the relevant studies relative to early literacy. The review focuses upon four primary literacy categories: causal factors that may predispose children to reading difficulties, research-based instructional strategies that can be implemented to ameliorate these reading deficiencies, and the teacher as well as principal behaviors that positively impact reading achievement.

The third chapter describes the research methodologies utilized in this study. A qualitative and quantitative approach was used to gather and analyze the findings of the questionnaire, the assessments, and interview information. The research population of the study is defined.

The quantitative and qualitative analysis of the data as well as the finding are included in the fourth chapter. A discussion of the statistical data and its relevance is included in the summation section of this chapter.

The fifth and final chapter provides a brief summary of the literature, a reminder of the methodology, and a summary of the findings. Recommendations from this research project, as well as implications for further research that may be necessitated as a result of this study, are also included.



## CHAPTER II

### LITERATURE REVIEW

A review of the literature presents a context for this study. The research provides a perspective of the concept of early literacy and summarizes the early literacy issues as they relate to student success in reading.

Ask any group of middle-aged Americans to reflect upon their experiences as they were learning to read and memories flood in immediately (Zemelman, Daniels, Hyde 1998). From stories of Dick, Jane, Spot, and Puff to the transparent nicknames given to the three leveled reading groups commonly remembered as the “Bluebirds”, “Sparrows” and “Buzzards” (Zemelman et al., p. 24). Maybe no teacher ever really used these labels, yet however the groups were camouflaged, even astute first graders could crack the transparent code that segregated the winners from the losers.

In many classrooms the basal was the primary source of reading instruction. Spelling texts provided limited instruction, in phonics, which was never related to decodable texts. Science and social studies lessons were provided by the Weekly Reader. Was this type of reading effective? Test scores that provided longitudinal views of basic reading skills were remarkably stable (Bracey, 1997). However, employers complained about what they perceived as the inability of their young employees to comprehend even simple texts. Yet some students from this era did become fluent, life long readers.

Zemelman (1998) reflects, “When we think back on our most personally powerful formative experiences with reading, those events are out of school” (p. 25). Does this mean that our schools are not effectively teaching reading, or that certain cultural constraints relegate some students to an impenetrable reading ceiling? This purpose of this study was to find the answers to these tough questions.

The literature is reviewed in four categories: causal factors that may predispose young children to reading difficulties; research-based instructional procedures including teacher strategies that can and must be implemented to ameliorate these reading deficiencies; and principal behaviors and early literacy knowledge that positively impact reading achievement.

#### Causal Factors

In 1997, the National Institute of Health supported prestigious research groups from across the nation including: The Bowman Gray School of Medicine; Yale University; The Ontario Institute for Studies in Education; Johns Hopkins School of Medicine; The University of Miami; The University of Colorado; The University of New York at Albany; Beth Israel Hospital; and Harvard Medical School as they compiled information based on longitudinal studies within specific research domains related to early literacy (Lyon, 1997). Dr. Reid Lyon, Chief of the Child Development and Behavior Branch of the National Institute of Health and Human Development, guided this group in their efforts. These researchers annotated a substantial body of research that provided educators with information on the commonalities that exist among students who continue

to fail to achieve success in school literacy. They categorized their findings into four broad categories.

The first category related to reading and language related processes. Researchers found reading difficulties affect at least 10 million children in the United States, and these problems reflect a persistent deficit rather than a developmental lag. Children with reading troubles differ from one another and from other readers along a continuous distribution. They do not aggregate together to form a distinct “hump” separate from the normal distribution. Children with and without discrepancies show similar information-processing, genetic, and neurophysiological profiles. The ability to read and comprehend depends on rapid and automatic recognition and decoding of single words. Slow and inaccurate decoding are the best predictors of deficits in reading comprehension. The ability to decode single words accurately and fluently is dependent on the ability to segment words and syllables into phonemes. Depictions in phonological awareness reflect the core of many reading problems. The researchers concluded the best predictor of reading ability from kindergarten and first grade performance is the ability to successfully master phoneme segmentation.

The second category focused on attentional issues. Disorders of attention and reading difficulties often coexist, but the two disorders are distinct and separate. Disorders of attention occur most frequently and exacerbate the severity and cognitive morbidity of reading disabilities. Because disorders of attention and reading ability often co-occur, more males are typically identified as reading disabled, spuriously inflating the gender ratio in favor of males.

Genetics was the third component the researchers studied. They found a multiple regression procedure had been developed that allowed for the analysis of the genetic etiology of individual differences in component language and reading skills. There is strong evidence for genetic etiology of reading abilities, with deficits in phonological awareness reflecting the greatest degree of inheritability. Also, at least one style of reading disability can be linked to the region of chromosome six, reflecting a possible association with autoimmune disorders. Relative to this component is the research from some studies that have clearly shown that parents reading disabilities is a predictor of substantially higher than normal rate of reading disabilities in their children (Fowler and Cross, 1986; Scarborough, 1990). The researchers admitted that while parents' reading disabilities are not completely predictive of their child's ability to learn to read, the risk does exist and certainly warrants very close monitoring, especially during the early years of language and literacy development. For example, Dr. Lyon contends genetics are involved in learning to read and this knowledge may ultimately contribute to early identification of efforts through the assessment of family reading histories.

Neuroanatomy, neurophysiology, and neuroimaging were combined to form the fourth category investigated. Neurobiological factors influence how people learn to read. Researchers discovered several types of brain pathology, including cell loss, and abnormalities of the corpus callosum. Regional blood studies indicate that deficiency in word recognition skills is associated with less than normal activation on the left temporal lobe. Finally, studies indicate that adults with reading disabilities have a greater than normal activation in the occipital and prefrontal regions of the cortex. The brain itself

carries out the different steps of the reading process. Using an MRI screening device, scientists can now “see” the actual neural systems used when both good and poor readers try to sound out novel words. Differences between neural patterns in these groups of readers may provide new insights into more precise and effective intervention strategies.

Research scientists are embarking on very exciting frontiers in understanding how brain development provides a window upon the mechanisms inherent in reading development. Eric Jensen (1998) who specializes in studies of brain research has written several publications for the Association of Supervisors and Curriculum Developers (ASCD). In his book, *Teaching with the Brain in Mind* (1998) Jensen cited an example of the Sudbury Valley School in Farmington Massachusetts that consistently demonstrated how reading readiness and the learners’ brain could coexist and contribute to a successful reading experience for all students.

The kindergarten through twelfth grade program does not force reading on any student. The philosophy at Sudbury is founded on the belief that youngsters are already exposed to thousands of vocabulary words in the world. Instead of teaching them reading at a specific age or grade level, the school simply allows students to read when they are developmentally ready. As a result, some children read at five years of age, others at six, and some as late as ten years of age. According to the school’s founder, Daniel Greenberg, the school has 100 percent truly functionally literate graduates. There are no reading disorders, or dyslexia, and everyone likes to read. It is an approach that says, “Wait until the brain is ready to read, then you can’t stop it” (Jensen, 1998, p.35).

Studies similar to the Sudbury Valley School are helping educators understand how the brain changes as reading skills developed. As this brain knowledge continues to evolve, professional educators in “the business of learning” (Jensen, 1998, p. 26) will find this information helpful as they tailor this research to meet the individual and unique needs of students.

Dr. Reid Lyon (1997) provides further insight into the factors that may create reading difficulties for many students. First he emphatically states, “A definition of reading abilities must be developed within a longitudinal developmental perspective unbiased by prior assumptions reflected in current definitions. These exclusionary definitions using discrepancy criteria appear invalid, particularly in the area of basic reading skills” (p. 17). This statement would imply that many misconceptions have delayed and limited opportunities for children with limited emergent literacy skills and their ability to read successfully in later years of schooling. In a speech to the United States House of Representatives: Committee on Education and the Work Force, Dr. Lyon (1999) reinforced and expounded upon the findings of the aforementioned research study that had been conducted using data from approximately 10,000 children. Phonemic awareness skills assessed in kindergarten and first grade served as potent predictors of difficulties in learning to read. With a test that takes only 15 minutes to administer, measurement of phonemic awareness skills as early as the beginning of kindergarten could predict with 92 percent accuracy the students who would have difficulties learning to read.

The development of phonemic awareness is necessary but not the only significant condition for learning to read. A child must integrate phonemic skills into the learning of phonetic principles, must practice reading so that word recognition is rapid and accurate, and must learn how to actively use comprehension strategies to enhance meaning (Beck, 1991).

The committee (Lyon, 1999) also included in their report a review of how these reading deficits may manifest themselves. The deficits identified included:

1. Phonemic awareness and alphabetic principle deficits are manifested by (a) labored approach to decoding unfamiliar word; (b) repeated misidentification of known words; (c) reading is hesitant; (d) frequent strops and starts; (e) multiple mispronunciations and (f) limited understanding of what is read.
2. Students who exhibit difficulties acquiring vocabulary fluency and reading comprehension skills exhibit the following behaviors: (a) inadequate understanding of the words used in the text; (b) inadequate background knowledge about the domains represented in the text; (c) lack of familiarity with syntactic and semantic structures; (d) lack of knowledge of writing conventions; (e) deficit in reasoning ability; (f) lack of ability to remember verbal information.
3. Developing and maintaining the motivation to learn to read often is manifested as the student avoids engagement in any type of reading behavior.

The National Research Council of the National Academics of Sciences and Engineering and the U.S. Department of Education supported a study to identify the specific skills and experiences that children need to become fluent readers. A select

committee composed of “educators, linguists, pediatricians and psychologists” conducted a meta-analysis of current research about how children become successful readers. Their findings are reflected in the ground breaking study entitled *Preventing Reading Difficulties in Young Children* (1998). Dr. Catherine Snow, Chairperson of the Committee, shares findings from the Committees’ research report. In addition to the cognitive deficiencies, auditory and visual impairments, Dr. Snow cited delayed language development as an area that arouses concern among parents, teachers, pediatrician and others. “In many cases, delayed language development is the first indication of a broader primary condition, such as a general developmental disability, autism, or neurological condition that is likely to be associated with reading difficulty” (1998, p.105).

Vocabulary acquisition is also a critical component identified by other early literacy advocates. “Infants whose parents talk to them more frequently and use bigger adult words will develop better language skills,” (Kotulak 1993, Section 1, p.4). During this time frame there is a huge vocabulary to be acquired. This crucial time lays the pathway for reading skills later on (Begley, 1996). Studies suggest that babies listen to words even though they cannot yet speak and this process contributes to the development of syntax, vocabulary, and meaning (Jensen, 1998). Surprisingly, there is no absolute timetable for reading. J.M. Kagan (1994) addresses the differences in infants when they are just months old. “I have seen an enfant who was aroused by every type of event; some were excited by moving sounds, and others showed the reverse profile” (1994, p.39). Differences of three years are normal, as children develop vocabulary commensurate with their age.



This critical factor of early language development does appear to predispose some children to early literacy problems (Graves & Slater, 1990). Voltaire stated in the seventeenth century that language is very difficult to put into words. That sentiment may be a key component to unlocking the difficulties many students have in learning to read. The relationship between vocabulary knowledge and reading indicates that the student, who possesses a large vocabulary, can read better and will read more. If the student reads more, the result will be a larger vocabulary. The result of such a two-way relationship is that without intervention, “the rich get richer and the poor get poorer” (Stanovich, 1986).

Students, as a whole, learn an amazing number of words during their early years, approximately 3,000 per year on the average, or eight words per day. However, the number of words individual students learn varies greatly, and multiple factors may contribute to this differential rate of vocabulary growth (Baker, Simmons, & Kame’enui, 1998).

Several researchers cited the fact that vocabulary growth involves astronomical amounts of information. The following results were typical:

1. On the average, children add 2-3 thousand words to their reading vocabulary annually (Anglin 1993; Beck & McKeown 1991; Anderson Nagy 1992).
2. Individual and SES-related differences in vocabulary size involve thousands of words (White, Graves, & Slater, 1990).
3. Learning a single word takes place in many small steps (McKeown, Beck, Omanson, & Pople 1985; Nagy, Herman, & Anderson, 1985).

4. The ability to analyze long words into meaningful parts plays an important role in vocabulary growth during the school years (Anglin, 1993).
5. Knowing a word is much more than knowing a definition (Anderson & Nagy, 1991).

Louisa Moats (1997) echoes many of these findings in her 30 years of research relative to early literacy. She also provides insight with respect to the gender issue. She concludes that as many girls as boys have difficulty learning to read. The conventional wisdom has been that many more boys than girls have difficulties. This wisdom has resulted in limited access for the early identification and prescriptive interventions for female students. Now females should have equal access to screening and intervention programs. Moats also believes that if early intervention is delayed until nine years of age (the time that most children with reading difficulties first receive services), approximately 75 percent of these children will continue to have difficulties learning to read throughout high school and their adult years as well.

To be clear, Dr. Moats reiterates, while older children and adults can be taught to read, the time and expense of doing so is enormous compared to what is required to teach them when they are five or six years old. In a symposium conducted at the Texas Association for Supervision and Curriculum Development Reading Series in Austin, Texas in October of 1997, Dr. Moats listed five common characteristics of poor and novice readers. Included in this list are: (a) an over reliance on context and guessing; (b) limited phonemic awareness; (c) slow naming speed; (d) a definite lack of fluency in

word recognition, and (e) a devotion of attention to decoding processes which in turn leaves limited attention available for meaning making.

There are some risk factors for early literacy that are linked to poverty. “Poverty undeniably poses numerous threats to children’s educational prospects. Children in low-income families tend to have uneducated parents, lack adequate nutrition, live in poor communities, and attend substandard schools. All of these factors can be detrimental to reading” (Burns, Griffin, & Snow, 1999 p. 133).

In education, the socio-economic status (SES) of the school is based upon the most current census data for that community and the number of children who qualify for the federal lunch program at the campus level. SES is identified as an individual risk factor to the extent that children who attend a school with a high percentage of low-income families are more likely to become poor readers than those from a more affluent school community (Snow, 1998). It is a group risk factor in that often children from poverty may attend substandard schools. “However, the correlation between SES and low achievement is probably mediated, in large part, by differences in the quality of school experiences” (Snow, p.126).

Hart & Risley (1996) concurred with the link between poverty and early literacy. The researchers found that a strong relationship exists between the environmental indicators of socioeconomic status and vocabulary knowledge. Vocabulary knowledge is crucial for students most at risk of academic failure. The study illustrated that the higher the social class of the parent, the more time and talk their children received. The

researchers also found that these SES-related differences in vocabulary size that occur in the first years of life widen over time and tend to persist throughout the school years.

The Federal Compensatory Education Program, enacted as Title I of the Elementary and Secondary Education Act (ESEA) in 1964, has provide supplemental resources to schools with large numbers of low income students for over three decades (Wong & Myer, 2000). Federal Legislation passed in 1964, and subsequently reauthorized by the legislators every four to five years (most recently by President Bush on January 8, 2002: The No Child Left Behind Act 2001), has encouraged schools to adopt schoolwide projects which provide the opportunity for schools with a high percentage of low SES students to use their federal dollars more flexibly. Schools who receive funding under Title I: Part A can utilize their dollars as a schoolwide program (schools with at least a 40% low socio-economic status), or a targeted assistance campus (SES above 40%). A Title I Part A schoolwide program permits a school to use funds and other federal resources to upgrade the entire educational program of the school in order to raise academic achievement for all students. A schoolwide campus must also develop a clearly delineated plan that includes the following ten components:

1. A comprehensive needs assessment of the entire school.
2. A list of schoolwide reform strategies that provide opportunities for all students to master the State's proficiency levels.
3. Teachers and paraprofessionals must be highly qualified (certified).
4. On-going professional development opportunities must be provided for all staff members.

5. Clearly delineated strategies must be developed to attract highly qualified teachers to high needs schools.
6. Practices shall be designed to increase parental involvement.
7. Plans for assisting preschool children in the transition from early childhood programs to the regular education setting.
8. Measures to include teachers in the use of academic assessments.
9. Activities to ensure students who are experiencing difficulties mastering at a proficient level are provide with effective, timely assistance.
10. Coordination and integration of State, Federal and local services (TEA Title I Program Guide,2002)

A schoolwide program contrasts with a targeted assistance program (TA) in that funds on a TA campus may be used only for eligible children who are failing, or at risk of failing to meet State standards. These projects have the potential to address three interrelated challenges in the nations' most disadvantaged schools.

First, the increased flexibility allows administrators to concentrate funds for the most disadvantaged students. Second, schoolwide projects can reduce fragmentation of the curriculum, as well as instruction in the classroom. Third, these projects are designed to increase accountability of the individual campus. The funds may be used to improve the entire school program rather than targeting a small percentage of the student population.

In their research on schoolwide campuses, Wong and Meyer (2000) provided a synthesis of the findings from twelve evaluative publications to determine their

effectiveness. The vast majority of principals of schoolwide projects operating for at least three years, reported that evidence favored the schoolwide project. “Further, of those schools in the first group of schoolwide projects assessed at the end of three years, only 10 percent failed to show the achievement gains required to continue with the project” (p. 2). Evaluation of schoolwide projects continues to provide longitudinal data that will enable researchers to discern the effects that may not be fully apparent during these first years of implementation.

Burns (et al., 1999) cite two other factors that may exacerbate the problem of literacy acquisition for children. Children who attend a chronically low achieving school produce large numbers of children who cannot read at grade level, year after year. It is necessary to assess these children individually. Although most students can be brought up to, or near grade level during the primary grades, sustaining this accomplishment is difficult when a large percentage of a school’s students are failing.

Second-language learners are also at-risk for delays in literacy acquisition. This second factor establishes a link between children with low English proficiency and grade level reading achievement. While these children can become articulate with the spoken language in a minimum of two to three years, reading comprehension and writing skills take five to seven years to fully develop.

Despite progress over the past 15 to 20 years, Hispanics are about twice as likely as non-Hispanic whites to read well below average for their age. Many of these children also have parents who are poorly educated, come from low-

income families, live in low-income communities, and attend low achieving school. With multiple risk factors in place, we can predict that, without excellent instruction, large numbers of these children will be at risk for reading difficulties. (Burns et al., 1999 p. 130)

Fortunately, the field of reading is at a point in its research and professional knowledge to make strong, clear, and assertive statements about how to teach reading. The next section explores some of these options.

#### Instructional Procedures / Teacher Behaviors

It is difficult to distinguish and differentiate definitive approaches for instruction and teacher behaviors. These concepts are not mutually exclusive, rather they are closely intertwined. Therefore, this section will review both concepts.

Crevola and Hill (1998) asserted that literacy standards will not improve by helping teachers fine-tune existing practices or exhorting them to work harder. Nor will focusing on a set of intended outcomes lead to higher standards. However, dramatic improvements are achievable in early literacy within the context of a fully implemented, comprehensive program that involves a highly structured systematic school wide commitment as well as a coordination of efforts for the successful reading achievement of all students.

Systemic changes must occur within the classroom if all students are to become successful life long readers. It is critical that a multi-pronged approach to promoting early literacy be implemented on every campus and sustained throughout the years of formal

schooling (Graves, 1992; Graves, Juel, & Graves, 1998). The school must provide high quality reading curriculum and instruction in a concerted effort to insure the children served meet the challenge of learning to read. Mary Russo (1995) affirmed this contention when she stated, “Reading is a learned behavior that must be taught and repeatedly reinforced. Effective strategies, interventions, and programs must be in place to insure all students become proficient readers” (p.2).

Literacy requires a beginning reader to make sense of symbols on a page and to interpret the meanings of those symbols (Kame’enui, 1996). Therefore, as research has indicated, the development of language is a critical component of reading success. Teaching individual words is not sufficient to change the rate of learning or to overcome large individual or SES related differences in vocabulary knowledge. Widespread reading, on the other hand, has been demonstrated to be a potential means of increasing vocabulary size, which is a crucial component in the development of literacy skills. Nagy, Anderson, and Hermand (1987) estimated that 20 minutes a day of reading could lead to a gain of 1,000 words per year. Reading has also been demonstrated to lead to a variety of cognitive benefits in addition to vocabulary growth. While reading works for many students, some limitations exist for using it as a means of promoting vocabulary growth; it often fails for those who need it most. The fewer words a student knows, the harder it is to read and the more difficult it becomes to learn new words (Stanovich, 1986).

Guthrie, Shafer, Wang, and Afferbach (1995) also supported the effective uses of reading strategies to promote vocabulary growth. They asserted that vocabulary growth



required increasing both a student's volume of reading and their comprehension. This acquisition can be accomplished by utilizing four strategies.

1. Students must be matched with texts Carver (1994) however, offers a caution. He emphasizes the importance of the role of the teacher as the students are making choices about books they will read. Often, student-selected books do not contain language-rich print that promotes vocabulary growth. It is, therefore, important for the teacher to assist students as they make these decisions.
2. Adequate time must be provided for reading. Zemelman (et al., 1998) suggests that providing proportionate time allocations for an effective early reading program can enhance literacy. The suggested time table includes competencies that should be explicitly taught to children on a daily basis. They include the teacher reading good literature aloud; phonics and word study; shared reading; independent reading at the child's fluency level; and writing. Each competency must be taught in a minimum of five-twenty minute blocks (p.36).
3. Teaching strategies must be implemented that help children understand text better and cope with unfamiliar words. Inferring the meaning of new words requires not only prior knowledge, but explicit context and clue instruction (Coady & Hauckin, 1997; Laufer, 1997). Context clue strategies including defining, comparing, contrasting and deleting unknown vocabulary words can increase fluency.

4. Fostering a classroom environment that encourages social interactions.

Vocabulary growth, in addition, depends on exposure to rich oral language, including both conversations and hearing text read aloud. Children's vocabulary growth depends both on the quality and the quantity of the oral language to which they are exposed (Dickinson, 1994; Hart & Risley, 1996). Children can benefit from listening to stories read aloud even when these stories are not in the language spoken at home (Feitelson, Goldstein, Iraqui & Sahre, 1993).

“Word consciousness” (awareness of and interest in words) is another critical component of vocabulary acquisition that is espoused by a number of educational researchers as essential for reading achievement (e.g., Anderson & Nagy, 1992; Beck, McKeown, Omanson, 1987). However, word consciousness is a multi-faceted construct, involving several components.

First, it is necessary to develop a feel for how language works. Oral language is often highly contextualized, relying on gesture, intonation, and a shared context to communicate meaning. Written language is typically decontextualized, relying on word choice for communicative effect. Students need to develop a feel for how written language is different from every day conversation. Hearing text read aloud is one important way to familiarize students with the nature of decontextualized language. However, it is also valuable to draw students' attention to the distinctive characteristics of written language, and to help them learn to read like a writer (Carlise, 1995).

A second component involves sensitivity to syntax. To infer the meaning of new words and to make effective use of information in definitions, students have to be able to

reflect on word order and understand how the position of a word in a sentence determines how its meaning relates to the larger context (Beck et.al, 1987).

A third construct encompasses an awareness of word parts. Student awareness of morphology (prefixes, roots, and suffixes) contributes to their vocabulary growth (Anglin, 1993), and from the growth in vocabulary, reading achievement is enhanced (Carlisle, 1995).

An in-depth knowledge of specific words is an additional element of word consciousness. To appreciate the power of words, students need to have in-depth knowledge of some specific words. However, most traditional vocabulary instruction results at best in only a passing acquaintance with words (Stahl 1986). Therefore, teaching individual words is an important strategy required for vocabulary development. Often in a classroom setting, only a small fraction of the words that are especially worth learning can be covered. Therefore, these words should be central to a major theme of the text or unit, crucial to understanding the text, and reasonably frequent in the language. They also should have some extra payoff in that they are relevant to the student.

Thoroughness of instruction is imperative in the development of an extensive vocabulary. Stahl (1996) recommends giving both context and definitions, encouraging deep processing, and providing multiple exposures to new words. However, not all vocabulary teaching has to take place in formal vocabulary lessons and not all vocabulary learning has to be hard work. Talking about words in stories and explanations in passages of difficult words in a story can lead to significant learning (Brett, Rothlein, & Hurley, 1996). Teaching individual words cannot alone produce large-scale gains in vocabulary

size. For vocabulary to have long-term pay-off, it must contribute somehow to learning of words not specifically covered in instruction. Effective instruction of independent words should, therefore, be motivating or help to sustain interest in words, increase students' metalinguistics awareness, give them accurate and helpful knowledge of how words work, and not consume too much of the time devoted to reading (Elley, 1989).

It is significant that much of these "word-learning skills" are developed at the kindergarten and first grade level. In their study of kindergarten and first grade children, Gates and Dahl (1991), found a need for policy makers, curriculum developers, textbook developers and teachers to change their view of what constitutes effective reading and writing. As the research into emergent literacy has made obvious, learning to read begins through many experiences with written language in the context of meaningful literacy events. As the picture of written language evolves, conceptually, so do understandings of the system and the role each plays in the whole process of early literacy (Dole, 1983).

Learning to read and write does not begin with learning letter names and sounds. Children have difficulty learning their pieces without a larger picture of the entire system. If children have not had the opportunity to explore the whole of written language in meaningful, functional literacy events, then instruction must provide the opportunity. Otherwise, from a phonological perspective, children are asked to learn the fine points of a system of which they have little or no understanding. This is not possible for any learner at any age (Elley, 1989).

Gates and Dahl (1991) also joined other researchers in calling for classroom environments that surround the children with language and print, and which provide

authentic opportunities to engage in literacy activities. The relationship between success at learning to read and write and transactive style argues for the creation of learning environments that encourage and enable active learning on the part of students. Students must be encouraged to construct their own meanings, and to interact with the environment as they learn to read and write. “Curricula and classroom environments which either state directly or imply that the student must passively wait for enlightenment run the risk of learners taking them at their word, and thus failing to construct the big picture within which the small pieces make sense” (Gates & Dahl, 1991, p. 52).

A final aspect of the research by Gates & Dahl (1991) indicated schools need to institute programs and policies which enable the families of children to become meaningfully involved in the day to day school lives of their children. The studies by Goldenberg (1989) support this concept. “Someone, either a teacher or parent or both did something out of the ordinary, something that had an academic focus and that eventually led to the child’s-better-than-expected reading achievement” (1998, p. 51).

From early childhood interventions to non-graded primary programs, Slavin, Karweit, Wasik (1993) expounded on what their research found to be critical interventions that can provide students with the skills and knowledge they need to become successful readers. These interventions include:

#### Birth to Age Three Interventions

Both child-based and family-centered interventions with at-risk children can make a substantial and, in many cases, a lasting difference. In child-based interventions, toddlers are placed in stimulating and developmentally-appropriate settings for some

portion of the day. Family-centered interventions provide parents with training and materials to help them stimulate their children's cognitive development, to help them with discipline and health problems, and to help with their own vocational and home management skills. The longitudinal studies of these birth-to-three interventions demonstrate that IQ is not a fixed attribute, and it can be changed by modifying a child's environment at home or in these center-based programs. These early interventions can also significantly influence and reduce special education referrals and retention.

#### Impact of Preschool

When compared to similar children who do not attend preschool, those who did attend have been found to have higher IQ and language proficiency scores immediately following their preschool experience. Yet, follow up assessment typically found these gains do not last beyond the early elementary years, at most. Several studies do indicate that the most important impact of preschool is on other outcomes such as retention and placement in special education programs. Preschool experiences for four year olds should be part of a comprehensive approach for prevention and early intervention, but it cannot be expected to solve all the problems of children who are at risk of reading failure.

#### The Kindergarten Question

Since the great majority of children attend kindergarten, the main question in recent years has focused on full-day versus half-day programs. Research finds positive effects of full-day programs upon end-of-year measures of reading readiness, language, and other subjects; however, longitudinal studies have failed to find maintenance at the end of first grade. Several specific kindergarten models were found to be effective for

long-term effects on reading performance. These programs such as Alpha Phonics, and TALK are all structured sequential approaches to building pre-reading and language skills, which are thought to be important predictors of success in first grade.

#### Retention, Developmental Kindergarten, and Transitional First Grade

Many schools attempt in one form or another to identify young children who are at-risk for reading failure and give them another year before second grade to catch up with grade level expectations. Studies comparing students who have experienced an extra year have generally found these students appear to gain on achievement tests compared to their same grade classmates, but not in comparison to their age mates. Clearly this experience has no long-term benefits. In contrast, studies of students who have been retained find that controlling for their achievement; such students are far more likely than similar students to drop out of school.

#### Class size

A decade of research on class size has established that small reductions in class size has few effects on student achievement. However the opportunity of teachers to closely observe, monitor and facilitate appropriate instruction and interventions for struggling reader is enhanced when the numbers of children are significantly reduced. Research has held out the possibility that larger reductions may have a meaningful impact if pupil-to-teacher ratio is lowered from 25 to 15 students. The systematic, state-sponsored studies of reduced class size, such as the Tennessee Project (Folger & Breda, 1990) concluded that reducing class size to fewer than 21 students had positive effects for reading achievement at the end of first grade. In summary, although teacher-student

reactions are impacted by class size, best instructional practices are not guaranteed by class size.

### Instructional Aides

The extensive Tennessee Project completed in 1990 looked at the impact of instructional aides and student achievement (Folger & Breda, 1990). Longitudinal studies of Title I campuses indicate that a high percentage of the lowest performing at-risk students are instructed by those least qualified to teach them (e.g. instructional aides, Wong & Meyers, 2000). The project found limited to zero impact on overall achievement in all years in classrooms with an instructional aide.

### One-to-One Tutoring

Of all the strategies reviewed by Slavin, et al., (1993) in this article, the most effective by far for preventing early reading failure are approaches incorporating one-to-one tutoring for at-risk first graders (Wasik and Slavin, 1990). These researchers reviewed longitudinal data on five tutoring models including Success for All, Reading Recovery, Prevention of Reading Disabilities, The Wallach Program and programmed Tutorial Reading. The immediate reading outcomes are very positive, but the largest and the most lasting effects are found in the programs that use highly qualified, well trained teachers as tutors, especially, Reading Recovery, Success for All, and Prevention of Reading Disabilities. After these students have a solid foundation in early literacy skills (i.e. phonemic awareness, phonics, alphabetic principle) they still need high quality instruction and other services in the later elementary grades to build on their literacy base.



The importance of well-trained classroom teachers cannot be emphasized enough. Today's teachers face enormous pressures as they prepare students to meet the challenges of the 21<sup>st</sup> century. They must understand a great deal about how children develop and learn, what they know, and what they can do. Teachers must know and be able to apply a variety of teaching techniques to meet the individual needs of students. They must be able to identify students' strengths and weaknesses and plan instructional programs that help students make progress. In addition to this expertise in pedagogy, teachers must master and integrate content knowledge that underlies the various subjects in the children's curriculum (Snow, et al., p.279).

In their report, Meyer, Wardrop, and Hastings (1993) attempted to begin filling what they perceived as the void in the literature on teaching behaviors that impact early literacy by presenting findings from a two-year study of kindergarten classrooms in three midwestern school districts. Their research focused first on the children's entry level abilities as measured by a decoding test. They also utilized information gleaned from full day observations of entire kindergarten classes to determine what teacher activities were associated with differences in childrens reading performances from the fall to the spring of their first year of schooling. The results suggest that what happens within the kindergarten classrooms rather than the length of the day determines childrens' reading ability at the end of kindergarten.

At the individual teacher level, substantial differences in the effectiveness of teachers' instructional characteristics exist. These characteristics are included within the following observations. Ten of the teachers utilized no process variables that made

significant differences in students performances; however seven teachers exhibited numerous characteristics that significantly impacted reading achievement. The researchers found that these effective teachers spent little time with their students in non-instructional ways. They concentrated time on teacher-directed reading instruction. They read to their students regularly and spent more time preparing them to successfully accomplish class-specific assignments. These teachers also had the highest rate of interactions with their classes. The researchers found students in these classes were highly successful on standardized reading assessments at the culmination of kindergarten and throughout first grade.

Mary Russo (1998) writing in the Compact for Learning Series addresses six behaviors that effective teachers utilize to enable students to read. These behaviors include:

1. Rigorously teach reading and writing skills in a systematic, highly structured format. Focus reading activities on developing higher order thinking skills. Compare the reading curriculum and materials with those of the most successful schools and standards in the state.
2. Set high expectations for all students and encourage families to do the same. If teachers expect excellence from their students, they will work hard to meet these expectations and expect more from themselves. Teachers must consult with appropriate school or district staff on the best practices for extending high expectations to include students with learning challenges and special needs.

3. Encourage students to read at home with their families. Provide appropriate book lists to the families. Often families are not certain of the reading level of their children; book lists can help them choose books of high quality at the appropriate difficulty.
4. Encourage students to go to the school library and to the local library after school. Such visits will develop a link in the child's mind between free time and reading.
5. Use interesting community settings to stimulate reading and writing.
6. Have students frequently work in cooperative, interactive settings. Group work allows students with varying levels of literacy and language proficiency to gain from and contribute to each other's learning.

Findings from the National Reading Panel (1999) comprising leading scientists in reading research, representatives of colleges of education, reading teachers, educational administrators and parents, affirmed the importance of teachers' instructional methods. Teachers require knowledge of the pedagogy and theory that substantiates their teaching practices. They must model strategies and thinking processes that encourage student inquiry and maintain high levels of student focus and engagement. Data from a meta-analysis research project supported by the National Reading Styles Institute (NRSI, 1998) indicated clearly in order for teachers to use strategies effectively, they must receive extensive, formal instruction in effective reading strategies. The report affirms that, "It is important to understand that there is no single best teaching reading method that will meet the needs of every child" (1998, p.2). Teachers need to have a wide range of skills,

as well as, a wide range of strategies that will enable them to match their instructional approach to the most appropriate way of engaging each child.

In Texas in 1996, then Governor Bush spearheaded the Texas Reading Initiative. This Initiative is a comprehensive program of special strategies to improve reading instruction for students. A critical component of this Initiative was the involvement of the Texas Center for Reading and Language Arts (TCRLA) headed by Dr. Pam Bell. This research agency has provided the impetus for the formation of Texas Reading Academies (TRAs) for teachers in kindergarten, first, second and third grades. Bush directed the Texas Education Agency to implement a plan that would enable all students to be able to read on grade level or higher by the end of the third grade and continue to read on grade level or higher throughout their school careers. The Kindergarten class of 2000 would be the first group affected by this educational reform. These teachers are provided with a week of intensive training in strong research-based literacy knowledge, skills, and practices for implementing an effective reading program in their respective classrooms. Continued follow-up and web site content is provided for these teachers. The TCRLA is continuing the evaluations of the Academies begun in 1999.

Also passed and funded in 1999 by the 76<sup>th</sup> Legislature were intervention efforts for kindergarten and first grade students known as the Accelerated Reading Initiative. Funds from this Initiative were to be used to train tutors for at-risk students in kindergarten and first grade who were having difficulty meeting grade level competencies in reading.

The 76th Legislature also enacted the Student Success Initiative which established the accountability standards for students in third through eleventh grades. The components of this new accountability system included: By 2003, third grade students must pass the reading portion of the Texas Assessment of Knowledge and Skills (TAKS) test to be promoted to the next grade. In 2005 fifth grade students must pass the reading and math TAKS to be promoted to the 6th grade; and in 2008 eighth grade students must pass reading and math TAKS to continue to the ninth grade. The importance of highly qualified educators with strong understanding of the components of an effective reading program are essential for the students in Texas. An evaluation team has been formed and will examine the TRAs at seven districts across the state to understand how these Academies impacted students reading skills and teachers instructional knowledge (TCRLA, 2000). The final report should be available after the final Academies in 2002.

Some final criterion to be considered was the relationship between teacher behavior and student learning. Brophy and Good (1986) identified seven characteristics of teachers who elicit the strongest achievement gains from their students. These characteristics included:

1. Appropriate expectations and a sense of efficacy are apparent in teachers who produce the greatest learning gains accept responsibility for teaching their students. They consistently express proactive and appropriate expectations for learning for all the students in their classroom.
2. Effective classroom management and organization create environments that emphasize the importance of reading.

3. Successful teachers allocate as much of the available time as possible to instruction in the curriculum rather than to nonacademic activities or pastimes. Their students spend more time on academic tasks than do the students of teachers who are less focused on instructional goals.
4. Curriculum pacing is an important strategy as teachers move through the curriculum in ways that minimize student frustration and allow continuous progress.
5. Effective teachers actively instruct – demonstrating skills, explaining concepts, conducting participatory activities, explaining assignments and reviewing when necessary. They teach students rather than expect them to learn on their own from curriculum materials. These teachers do not stress only facts and skills; they also emphasize concepts and understanding
6. Following the active presentation of new content, effective teachers provide appropriate opportunities for students to practice and apply it. They monitor each student’s progress and provide feedback and remedial instruction as needed, making sure students achieve mastery.
7. Despite strong academic focus, teachers who elicit strong achievement gains maintain pleasant, friendly classrooms. These instructors are perceived as enthusiastic, supportive “coaches and cheerleaders” for all of their students.

David Gordon (2002) in a report in the Harvard Education Letter emphasizes the importance of the interactive approach to reading instruction. Gordon questions, “In a high stakes testing environment, should teachers use so-called didactic methods-that is

lectures, drill and practice, and worksheets that encourage students to memorize facts and procedures- or an interactive approach that emphasizes inquiry-based, hands-on activities; knowledge-building discussions; and projects that connect to the students' larger world" (Gordon, p.7)?

In his study of Chicago elementary schools, students in classes with high levels of interactive instruction scored higher on year-end tests than the city average which was 51 percent in reading. Students in mostly didactic classrooms scored 3.4 percent lower in reading than the city average.

The International Reading Association has also published a report entitled *Honoring Children's' Right to Excellent Reading Instruction* (1998) in which they clearly outline the responsibilities of all stakeholders in the educational reading process for children. In this expose the Panelists state all children have a right to:

1. Appropriate early reading instruction based on their individual needs.
2. Reading instruction that builds both the skill and the desire to read increasingly complex material.
3. Well prepared teachers who keep their skills up to date through effective professional development.
4. Access to a wide variety of books and other reading materials in the classroom, school and community.
5. Reading assessment that identifies strengths and needs and involves students in making decisions about their instruction.

6. Children who are struggling to read have a right to receive instruction from professionals specifically prepared to teach reading.
7. Reading instruction that involves parents and communities in their academic life.
8. Meaningful instruction that makes use of their first language skills.
9. Equal access to the technology used for improvement of reading instruction.
10. Classrooms that optimize learning opportunities.

In summary, Dr. Louisa Moats (1999) writing in a paper prepared for the American Federation of Teachers states, “Teaching reading is rocket science.”

Just about all children can be taught to read and deserve no less from their teachers. Teachers, in turn deserve no less than the knowledge, skills, and supported practice that will enable their teaching to succeed. There is no more important challenge for educators to undertake (p. 18).

#### Principal Behaviors

Historically the image of the school principal was a strong, usually male figure that knew what needed to be done and directed others to do it (Bolman and Deal, 1997). This model mirrored the hierarchical top-down model of bureaucracy that characterized business and educational organizations during the twentieth century. New circumstances call for a leader who is a “creator of possibilities- dreams of mutual learning and appreciation, and visions of creative ways to work constructively and collaboratively at



cultural boundaries. To weather this transitional context, leaders need to understand two basis realities about school leadership” (Bolman and Deal, 1997, p.1).

The first is that leadership is a partnership. Within this partnership, a relationship is developed with the leaders, constituents and concepts that impact student achievement.

The second reality is that leadership is not a top-down influence from those in positions of authority. It is a process of reciprocal influence that centers on common goals and missions.

Educators have wasted precious time and resources looking for external resources. Very clear research findings indicate that student achievement increases substantially in schools where the principal facilitates collaborative work cultures that foster a professional learning community among teachers and other stakeholders within the learning community (Bolman & Deal, 1997). These schools focus continually on improving instructional practice in light of student performance data. They also link to external data and staff development support (Newmann & Whale, 1995). School principals for change must be leaders in real reform situations.

Michael Fullan (1997) believes that overload and vulnerability make it difficult for reform minded principals to think outside the box. But a new mindset and four guidelines for action can help them truly lead. These guidelines included:

1. Respect Those Who Want to Silence

Resistance to a new initiative can be highly constructive. It is important to realize that often those who resist have something important to tell us. They

often have an understanding of the problem from their perspective that may not be seen by the principal.

## 2. Move Toward the Danger in Forming New Alliances

Healthy schools and healthy communities go hand in hand (Schorr, 1977) and it is important for the principal to develop a strong relationship with the community. Leaders often have to do the opposite of what they may feel like doing. Instead of putting up barriers they must move toward the environment, as it is laced with opportunities. Successful schools are not only collaborative internally; they must also have the confidence, capacity, and political wisdom to reach out into the community and consistently form new alliances.

## 3. Manage Emotionally as Well as Rationally

The emotionally intelligent principal helps teachers, students and parents see problems not as detractors, but as issues that will make the environment stronger. Principals who manage emotionally as well as rationally maintain a strong task focus. They expect anxiety to be endemic in school reform, but invest in those structures that help constituents successfully solve the problem. Collaborative cultures promote support, and elevate expectations.

## 4. Fight for Causes (Be Hopeful When It Counts)

It is especially important that leaders have and display hope. Teachers are desperate for hope. They understand that hope is not a promise, but a part of a larger purpose and they are not alone in the effort. Articulating and expressing hope when the going gets rough re-energizes teachers, reduces

stress, and encourages solutions that can point to new directions. Principals will be more effective and healthier if they maintain and pursue high hopes as they lead their schools.

The most critically important component of the job of every principal is to become an advocate for what is best for children in the school (Clark, 1999). Effective principals must be facilitators of learning and teaching. Research shows that effective schools have effective leadership (Lezotte, 1998). According to Keller (1998), there are several characteristics that are important in providing sound leadership. An effective leader: (a) recognizes teaching and learning as the main business of a school; (b) communicates the school's mission clearly to all stakeholders; (c) fosters standards for teaching and learning that are high and attainable; (d) provides clear goals and monitors the progress of students toward meeting them; (e) spends time in classrooms and listening to teachers; (f) promotes an atmosphere of trust and sharing; (g) makes professional development a top concern; and (h) does not tolerate poor teaching.

In his report entitled the *Crayola Curriculum*, Mike Schmoker (2001) indicates that for improvements in reading classes to have a positive impact upon the learners, principals must take a hard look at what is happening in these classrooms. Schmoker recounts his experience of touring a school that had been recognized internationally for excellence in staff development that enhanced student achievement in reading. After visiting numerous reading classes he discovered two things were terribly wrong. "One, a majority of students was sitting in small unsupervised groups, barely, if at all engaged in what was supposedly reading activities. Second, but most important, was that "the

activities seemed to bear no relations what so ever to reading, the subject presumably being taught at the time” (2001, p.42). Subsequent tours of other campuses and classrooms produced the same results. What Schmoker and administrators who were invited on these tours discovered was that an inordinate amount of time was spent coloring. “Coloring, on a scale unimaginable to us before these classroom tours” (2001, p.42). All of the administrators who participated in the tours, with the exception of one, found the experience to be not only a revelation, but also a highly positive one. Rather than condemning the teachers, these astute administrators used these opportunities to condemn the traditions and institutional inertia that accounts for these practices. They began immediately to structure the day to permit themselves the opportunity to not only become visible inside the classrooms, but also to provide the teachers with the opportunity to coach and mentor each other. In two years, the scores of the students in the second through fourth grade on the Stanford Achievement Test-Ninth Edition went up by 25 percentage points.

Brookover, Lezotte, and Edmonds (1982) in their initial research on effective schools emphasized the importance of the school principal as the catalyst that brings about high levels of student achievement. The authors’ conducted their research study after the Coleman Report, which was released in 1996, stated that family background was the preponderate determinate to student achievement in schools. Brookover (et al.) strongly disagreed with the Coleman findings and began to investigate “effective schools” around the country to determine if there were similar components or

“correlates” that set these campuses apart from those who were not succeeding with students. The Effective Schools movement was founded on three main assumptions:

1. Some schools are unusually effective in educating poor and minority children as measured by standardized assessments.
2. Successful schools exhibit common characteristics that are associated with student achievement and are within the sphere of influence of education to manipulate.
3. The information from these successful campuses can provide the impetus for improving other schools (Brookover, et al, 1982).

The Association for Effective Schools Inc.(AES1996) reiterates that while these seven correlates have been in existence since the research from the early 1980’s, continued study and research has deepened and broadened the knowledge and understanding of each correlate (AES, 1996). Brief summaries of the correlates included:

1. Clear School Mission

In the Effective School there is a clearly articulated mission or vision that the learning community shares with respect to the incredible task of educating its’ students. Each stakeholder also understands and accepts the individual and group responsibility for the learning of each student.

2. High Expectations for Student Success

There exists in the Effective School an atmosphere that not only all children can attain mastery of the essential components of the curriculum, but that

they, the educators have a high sense of efficacy that fosters a strong belief in their capability to help all students achieve mastery.

### 3. Frequent Monitoring of Student Progress

Consistent use of a number of assessment instruments and benchmarking tools are used to reliably scrutinize student learning. The results are used to improve individual student performance and to improve the overall instructional program.

### 4. Opportunity to Learn and Time on Task

A significant amount of the classroom time is spent on instruction in essential knowledge and skills and the students are actively engaged in this process.

### 5. Safe and Orderly Environment

The Effective School is a place conducive to teaching and learning. It is free from physical threat, and all students are treated with dignity and respect. It is structured enough to encourage risk-taking, but not oppressive in its climate.

### 6. Home-School Relations

Parents and community members are valued as integral partners in the learning process and are provided ample opportunity to play an active role in the development of the policies and procedures that impact achievement.

They are assertive in this role and understand their responsibility for the school's success. They know how to access the system and are encouraged in their efforts by the school staff as they engage in this process.

## 7. Instructional Leadership

In the Effective School, the principal is viewed as the instructional leader. He understands the mission of the school and effectively models and communicates that mission in management of the instructional program.

What is unique about these correlates is that they are “the only set of research-identified constructs with which to analyze that complex social organization called a school. The implementation of these correlates can cause the school as a whole to improve” (AES, 1996, p.2).

In order to determine the impact the building principal had with respect to the Effective Schools Process, staff from the University of Oklahoma used a case study approach and conducted research in order to specifically analyze the ‘Principal as Instructional Leader Correlate.’ The researchers shadowed five administrators in a rural district in Oklahoma for a day. Ground rules were established and notes were meticulously taken of the dialogue between the administrators and school personnel and students throughout the observations. The shadowers ascertained in each case, there was never a spare moment when any administrator was not on task.

The administrators were constantly dealing with some type of situation, some major in scope; some almost comical and trivial. Principals were called upon to literally put out fires (from burning toilet paper and paper towels in the bathroom), to cleaning up after sick students, to monitoring the cafeteria and hallways, to dealing with parents and various community members (who were at times irate). Every administrator lamented the fact that there simply was not enough time in the day to truly be an instructional leader.

Most took work home in order to give themselves time the following day to be available to faculty and students as concerns surfaced.

After careful analysis of this research project, the district administration has recognized the time spent by administrators on non-academic tasks as a legitimate concern. Through the Effective Schools Program the district has initiated a means for administrators to spend a minimum of 50 percent of their time as instructional leaders (Chance, 1992). Administrators were appreciative and receptive to this commitment, and as a result, achievement by all student populations has improved on the standardized assessments utilized by the district.

Although the principal may have other functions in operating a school organization, the role of the instructional leader is the most important (Brookover et al., 1982). Allen Orstein (1993) concurs in his research and finds, "School principals should focus more on instructional development techniques and curriculum planning, rather than on school operations, management and unscheduled meetings" (1993, p.24).

Another important component of instructional leadership is that of being a visible principal (Whitaker 1997). Principals will never be effective instructional leaders if they do not have a sense of the school. The visible principal must realize that any school business of major importance is not found in the office, but in the classrooms, hallways, playgrounds and cafeterias.

Niece (1983) found three major themes in his qualitative research on effective instructional leaders. First, they (principals) are people-persons who are "oriented and interactional" (p.16). Second, effective instructional leaders "function within a network



of other principals” (p.16). Third, effective principals were found to have had administrators who had acted as mentors to them. These practices were supported by Foriska (1994) when he discussed instructional leadership as “critical to the development and maintenance of an effective school” (1994, p.33).

The focus must always be on student learning. Murphy and Pimentel (1996) found in their study of North Carolina’s Charlotte-Mecklenburg Schools, “A skilled principal is one who creates a safe and orderly place to teach and learn; works effectively with individuals; manages time, facilities and resources responsibly; and above all else, develops an academic program that serves all children well” (p.78).

In his work, Marlow Ediger (1999) affirms the importance of the principal as the educational leader of the school and emphasizes the importance of the supervision of the reading curriculum as critical to student achievement. The reading curriculum cuts across all curricular areas and needs updating consistently to assist students to achieve competency with respect to their reading ability. In supervising reading instruction there are five main approaches that the instructional leader must consider: (a) the use of phonics; (b) the use of context clues; (c) word recognition clues using syllabication skills; (d) word recognition skill using picture clues; and (e) word recognition using configuration clues. Ediger defines the principal’s role in assisting teachers to excel at various types of reading instruction. The definition includes:

1. Guiding primary grade instructors in valuing personalized reading experiences for students through familiarity and demonstration of new approaches.
2. Developing teacher proficiencies.

3. Guiding teachers to professionally use quality basal readers to benefit and encourage student reading.
4. Developing an awareness of the merits and drawbacks of reading instruction philosophies in relation to remedial readers.
5. Leading teachers in utilizing the various literary genre to expose children to excellent literary materials.

Research supports the premise that the principal as an instructional leader plays a key role in assisting teachers in reading instruction and thus enabling each pupil to become a successful reader. Today's principal is constantly multi-tasking and shifting at a moment's notice. In *A New Vision for Staff Development*, Sparks and Hirsh (1997) confirmed that school principals must serve as facilitators, consultants, instructors, and colleagues who assist teachers in integrating curriculum and using new instructional practices... but most importantly, an effective instructional leader must 'walk the walk'.

As a part of the Texas Reading Initiative (1996) based upon the current reading research, all campuses were required to meet the state's challenging standards and performance goals to have all students reading on grade level by the third grade. In addition, the proposal added that all students should continue to read on grade level throughout their school careers. In order for the principal to be able to clearly articulate the school's vision for early reading instruction, a leader must understand the core principles that underlie effective reading instruction and must have visual images of what that effective instruction looks like. An instructional leader must be able to recognize effective reading instruction when it occurs. Furthermore, the instructional leader must

able to maintain a vision of effective reading instruction when it is not occurring and be able to communicate the gap to the teachers (Senge, 1990).

In order for principals to be able to articulate the schools vision for early reading instruction, a leader must understand the core principles that underlie an effective reading program. Principals must, therefore, focus on posing questions rather than dictating solutions (Louis, Kruse, and Raywid, 1996). Principals must engage the faculty in substantive dialogue to enable to enhance capacity and focus on a common vision. The questions were:

1. Do we have a shared vision of the reading program we want to create?
2. What commitments must each of us demonstrate in order for our vision to be realized?
3. What goals should we establish this year to move closer to the vision we desire?
4. Are we clear on what students should know and be able to do as a result of each grade level course of instruction?
5. What strategies are in place for responding to students who are having difficulty in achieving the intended learning?
6. Have we clarified the criteria we will use in assessment of the students?
7. How will we know we are becoming more effective?

There is little question that the role of the principle has changed since the days when the only accountability the principal was charged with was to be an effective organizational manager. Balancing the budget was the primary priority. But with

increased student accountability, the principalship has changed, but its importance has not. Schools need strong principals, who function as highly qualified instructional leaders. The findings in this study will lead to further understanding of the conceptual framework that must exist for a principal to be an effective instructional leader of reading and to communicate a clear vision for the entire instructional program that focuses on early literacy.

### Summary

This chapter provided a review of the literature as it relates to causal factors, instructional practices, and teacher and principal behaviors that impact early literacy. Chapter III will provide a description of the methodologies that were used to add to the research relative to this topic with a focus upon the instructional leader (the principal).

## CHAPTER III

### RESEARCH METHODOLOGY

This chapter provides an overview of the methodology utilized in this study. It includes a description of the demographic facets and characteristics of the participants who were included in this research, in order to provide a systematic and accurate depiction of the population. The data collection tools in this research were used to obtain standardized information taken from this representative sample of the selected population. Qualitative and quantitative data analysis methodologies were used to gather, investigate, and evaluate the information. The purpose of this study was to review the foundational information with respect to the causal factors that may predispose young children to reading difficulties, and the teacher and instructional practices and strategies that can be used to ameliorate these deficiencies. The correlation, between the principal's knowledge of early literacy, and the behaviors that impact an effective early literacy program and student achievement in reading were also investigated.

In much of the effective schools' research, principals are encouraged to be the instructional leaders of their campuses; yet there is limited research relative to the academic impact upon student achievement if the instructional leader has a sound reading background and knowledge of the components of an effective early literacy program. This study will provide additional information on this topic.

## The Research Population

In 1965, the Texas Legislature divided the state into twenty regions. Each of these areas was assigned an Educational Service Center composed of professional personnel dedicated to serving the needs of students, professional educators, parents and community members who reside in that regional attendance zone.

Region IX is the smallest Educational Service Center in the state. It is defined by a twelve-county area encompassing 40 public school districts, 121 campuses, one charter school and nine private schools. The total enrollment for all public school students in Region IX is 41,528 (Academic Excellence Indicator System, AEIS, 2000). The districts range in size from the smallest district, with an enrollment of 59 students in an all-level campus serving kindergarten through twelfth grades; to the largest district, with an enrollment of 15,244 students. This large district includes 21 elementary schools, four middle schools, three (4-A) high schools, four alternative schools and a special education center. Fourteen of the public school districts in Region IX are considered all-level single campus districts and serve all students (Early Childhood Education through twelfth grade) generally in one facility. The remaining 26 districts have a minimum of an elementary campus (Pre-Kindergarten/Kindergarten through sixth/eighth grade) and a high school campus (ninth through twelfth grade). There are 51 elementary campuses in Region IX who serve students in early education programs through sixth grade/eighth grade. Forty-six of the elementary campuses are considered Title I: Part A schools. Forty-two are identified as schoolwide Title I campuses, while five are designated as targeted assistance campuses. Schoolwide programs form the centerpiece of the Elementary and

Secondary Education Act's (ESEA) new vision and are among the most promising changes brought about by the Improving America's Schools Act of 1994. As previously stated, a schoolwide campus may use its Title I: Part A funds coupled with other federal, state, and local education funds to upgrade the school's entire educational program. This contrasts with schools designated as targeted-assistance. On these campuses the funds are designated for a pre-selected at-risk population that meets specific standardized testing criteria. Schools are eligible to operate a schoolwide program based on the Socio-Economic Status (SES) of their campus. With the reauthorization of the ESEA signed by President Bush in January of 2002, No Child Left Behind 2001 lowered the poverty threshold from 50 percent to 40 percent. If at least 40 percent of the children enrolled in school or residing in the school attendance area are from low income families, or a formula percentage are from low-income families and the school has applied for an Educational Flexibility waiver (ED. FLEX) from the Texas Education Agency, the campuses may serve all of their students with the supplementary Title I dollars.

Each of the 51 elementary principals in Region Nine who serve students in a facility distinct from secondary students (ninth through twelfth grades) were asked to participate in this study. The elementary schools from these districts selected were similar in demographic features, such as size, diversity, and socio-economic status. Other factors influencing school selection included accessibility to the researcher, control of extraneous demographic variables, (i.e. mobility, parents' level of education, traditional/non-traditional family structures) and the general acceptance of each campus of school research. Table 1 provides the demographic profile for the students in Region IX.

Table 1		
1999-2000 Region IX	Demographic Profile	
	State	Region IX
Total Students	3,991,783	41,400
Economically disadvantage	1,955,012	17,408
Limited English Proficient	555,334	1,218
African American	576,083	3,466
Hispanic	1,578,967	6,329
White	1,721,969	30,764
Asian / Pacific Islander	103,499	565
Native American	11,265	276
Schoolwide Campuses	3,674	74
Targeted Assistance Campuses	693	5

In order for one to determine the generalizability of this research to other regions, the information in Table 2 indicates the demographic data for the students in the State of Texas (TEA, 2000). This information is relevant as it demonstrates the comparability of the demographics in Region IX to the other schools in the State of Texas.



---

Table 2

---

1999-2000 State of Texas Demographic Percentages

---

African American	14.30
Hispanic	36.20
Native American	0
Asian / Pacific Islander	.80
White	48.60
Economically Disadvantaged	48.97

---

Campus selection was based on those willing to respond to a questionnaire, as well as those who had been on their campuses for at least three years. Of the 51 questionnaires that were mailed, five campuses did not respond, and four campuses have first year principals resulting in the forty-two campuses who participated in this study. The disaggregated demographic information for the 42 campuses involved in this research is provided in Table 3.

---

Table 3

---

1999-2000 Disaggregated Student Enrollment and Percentages

---

School	TTL	Af. Am	His	Nat. Am	As/Pac	Wh	Ed
A	413	12.5	41.8	1.0	2.5	42.3	86.7
B	240	0.2	3.1	0	0	97.0	29.1
C	340	15.8	35.1	0	2.2	46.5	74.7
D	132	0	0	1.1	0	99.0	54.0
E	292	5.3	37.4	0.8	1.5	55.0	79.5
F	460	0.1	7.3	0.1	0.2	92.0	48.1

---

Table 3 continued

1999-2000 Disaggregated Student Enrollment and Percentages							
School	TTL	Af. Am	His	Nat. Am	As/Pac	Wh	Ed
G	410	0.2	4.2	1.2	0.2	94.0	28.4
H	545	53.0	14.0	1.5	2.9	28.5	78.2
I	350	9.2	34.0	0.5	0.5	56.0	57.1
J	600	11.0	12.0	0.5	3.2	73.0	71.2
K*	600	8.4	17.0	1.0	2.3	71.3	40.4
L*	430	6.0	12.8	1.3	2.0	78.0	41.1
M	250	6.5	14.0	0.4	0.1	79.0	62.9
N	570	2.1	4.3	1.0	0	91.2	26.7
O	560	14.9	8.7	0	3.0	74.7	53.8
P	500	6.0	9.5	0.7	3.1	80.7	25.7
Q	450	8.8	15.5	0.8	2.3	73.4	27.3
R	510	1.6	15.0	0.7	0.4	82.0	59.1
S	575	5.7	10.6	0.7	1.6	81.4	65.6
T	300	24.6	10.4	0.7	4.7	59.6	54.9
U*	465	0.5	3.8	1.5	0.1	94.0	33.6
V	393	0.1	2.8	0.4	0.1	97.0	17.0
W	450	1.7	12.0	0.4	0.4	85.0	39.9
X	425	12.8	9.4	1.8	2.9	73.2	31.1
Y	108	12.0	40.0	0.8	0.8	46.0	65.4
Z	350	36.4	24.9	0.3	2.0	36.4	87.7
AA	350	13.2	24.8	0.4	0.4	61.3	42.4
BB	441	5.8	7.6	0	2.0	84.6	40.1
CC	261	14.0	38.0	0	0	48.0	56.8
DD	110	0	16.0	0.7	0.2	83.0	70.7

Table 3 continued

1999-2000 Disaggregated Student Enrollment and Percentages							
School	TTL	Af. Am	His	Nat. Am	As/Pac	Wh	%Ed
EE	329	2.6	15.0	0	0.2	82.0	57.1
FF	120	0	5.6	0	0.2	94.0	24.9
GG	365	0	9.2	0.6	0	90.0	48.0
HH	310	7.6	24.0	0.8	0.2	68.0	56.6
II	410	6.8	37.6	0	0.3	55.4	83.0
JJ	370	5.6	13.0	0.4	0.4	80.0	54.5
KK	325	18.1	9.0	1.2	3.2	68.5	46.2
LL	171	0	6.9	1.1	0.5	92.0	54.5
MM	680	12.8	7.4	0.4	5.4	74.0	38.2
NN	570	31.5	13.2	0.6	2.6	52.1	56.8
OO	374	12.6	8.6	1.1	3.2	74.5	30.0
PP	236	0	15.0	1.2	0	84.0	63.4

*Note.* The following codes were used in this table: TTL: The total number of students enrolled on the campus. Percent: AF. AM: African American enrollment. HIS: Hispanic enrollment. NAT. AM.: Native American enrollment. As/Pac: Asian Pacific Islander enrollment. WH: White enrollment. ED: Percentage of economically disadvantaged students enrolled on this campus. Campuses designated as targeted assistance are denoted with an asterisk (\*).

Demographic profiles relative to the selected administrators revealed the following information. Forty-eight percent of the principals have been administrators between two and five years and 64 percent have spent two to five years at their campuses. Forty-eight percent spent more than 10 years in the classroom, which entailed a plethora of assignments including agriculture, sciences, languages arts, mathematics, and automotives. Eighteen administrators taught at the secondary level. Twenty-one administrators taught at the elementary level, and three were special education all-level

teachers. Three of the administrators had achieved a reading specialist certification, one had a master's degree in reading, and 26 had a minimum of three to a maximum of 18 hours of college work relative to literacy. Thirteen principals had no college level reading courses. Only three administrators had had no professional development hours focused on reading in the last three years, while 30 indicated professional development hours ranging from one to 100 hours. The mean of this group was 51.06 hours; the median was 18 hours, and the mode was 18 hours with respect to professional development hours in reading. Table 4 depicts this information.

Table 4

Respondent demographic information			
	2-5 years	6-10 years	More than 10 years
Total years principal at this school	26	9	7
Total years principal	20	10	12
Total years in the classroom	7	15	20

The achievement of students in Region 9 in all student groups is historically at or above the state averages in the three disciplines tested by the Texas Assessment of Knowledge and Skills (TAAS). Data from the Spring 2000 administration of the (TAAS) indicated of the 18,761 students in third through eighth and tenth grades, who took the reading portion of the test, 91.4 percent passed. In Mathematics, 18,959 participated and 91.5 percent passed. The Writing scores for the 7,922 fourth grade students indicated 90.6 percent passed (AEIS, 2000). Ten of the self-contained elementary campuses were rated exemplary (90 percent of all students in all groups passed all sections of the test),

27 of the campuses were rated recognized (80 percent of all the students in all of the student groups passed all sections of the test) and 14 of the campuses were rated acceptable (50 percent of all the students in all of the student groups passed all sections of the test). This information provides a perspective of the overall accountability status of the students in Region IX.

In addition, on January 26, 2001, Jim Nelson, former Texas Commissioner of Education sent a letter to selected superintendents commending Title I campuses across the state for special recognition. The Title I schools who earned this special honor met the following criteria:

Distinguished School: Meets Exemplary standard for the 1999-2000 school year and Exemplary or Recognized standard for the previous two school years.

Honored School: Meets Exemplary standard for the 1999-2000 school year and Exemplary or Recognized standard for the previous school year.

Commended School: Meets Exemplary standard for the 1999-2000 school year.

In Region Nine, eight elementary campuses were designated as Distinguished, one was labeled Honored, and three were recognized as Commended. In his letter to superintendents, Commissioner Nelson stated, "To achieve and maintain such high standards is an accomplishment that serves as a model for other schools in the state to emulate." This academic information provides a background for the accountability figures that are provided in Table 5. This table, taken from the Academic Excellence

Indicator System (AEIS, 2000) report, depicts the average Texas Learner Index (TLI) scores on the Texas Assessment of Academic Skills (TAAS) from 1998-2000 for all third grade students (3<sup>rd</sup>) in Region IX, as well as those who are classified as economically disadvantaged (ED).

Table 5

1998, 1999, 2000 Third Grade and Economically Disadvantage TAAS Scores

School	TAAS(3 <sup>rd</sup> )	TAAS(ED)	School	TAAS(3 <sup>RD</sup> )	TAAS(ED)
A	78.4	83.6	V	90.2	75.2
B	94.3	91.5	W	93.4	89.1
C	70.5	70.7	X	94.6	88.6
D	97.7	88.9	Y	77.5	63.9
E	85.5	81.6	Z	88.2	90.7
F	91.5	86.8	AA	90.3	80.8
G	93.1	89.2	BB	86.8	85.3
H	79.9	78.1	CC	83.4	73.0
I	94.4	92.1	DD	92.0	89.3
J	84.2	81.2	EE	83.1	80.4
K	92.5	85.2	FF	93.0	87.4
L	90.6	79.5	GG	93.3	92.9
M	79.5	84.4	HH	88.1	85.4
N	95.6	90.5	II	96.3	94.5
O	91.6	82.6	JJ	90.5	86.3
P	85.6	76.9	KK	88.8	89.3
Q	96.5	87.0	LL	97.9	100.0
R	95.0	91.1	MM	87.1	82.3
S	91.6	81.4	NN	90.5	82.1
T	83.9	82.5	OO	90.7	85.3
U	90.9	87.1	PP	100.0	100.0

## Research Design and Methodology

While qualitative and quantitative studies provide different kinds of information, when focused on the same issue, these studies can triangulate methods to further enhance the validity and reliability of the findings (Isaac & Michael, 1995). This correlational study used three instruments for the collection and analysis of the research data. Quantitative data was gathered using an administrator questionnaire; and third grade TAAS scores. Structured administrator interviews provided the qualitative information. The research design for this study utilized a quantitative and qualitative format to ensure, and enhance to the extent possible, the reliability and validity of the results of the research project, through the triangulation of the administrator questionnaire, interviews, and the TAAS reading scores from third grade students in 1998, 1999, and 2000.

### Quantitative Instruments

Paul Leedy (et al., 1997) defines a quantitative study as... “ an inquiry into a social or human problem based on testing a theory composed of variables, measured with numbers and analyzed with statistical procedures to determine whether the generalizations of the theory hold true” (1997, p.102). This correlational study investigates the relationship between the dependent variable of the reading achievement of third grade students as measured by the Texas Assessment of Academic Skills (TAAS) and their principal’s background and instructional knowledge of components of a successful early literacy program as measured by the results of the administrator questionnaire (Texas Reading Leaders Questionnaire: Principals Knowledge of Literacy). In the 76<sup>th</sup> legislative session, the Texas Reading Leaders’ Project was initiated. The

questionnaire was developed as a result of this legislation. The Texas Center for Reading and Language Arts at the University of Texas, the Texas Education Agency and the Meadows Foundation supported this initiative. The purpose was to strengthen instructional leadership in the area of early reading programs. Improvement in reading was primary goal of the Texas Reading Leaders Project, and it was to be addressed in a variety of ways. The goal was to train 50 Texas Reading Leaders (TRLs) who would be in charge of directing reading forums in their regions. An advisory committee from organizations with proprietary interests in instructional leadership in elementary schools recommended a plan for nominating candidates through professional organizations including the Texas Elementary Principals and Supervisors Association (TEPSA), the Texas State Reading Association (TSRA) and the Educational Service Center (ESC) Reading Liaisons. They also developed a plan for the equitable representation of the Texas Reading Leaders (TRLs) who were selected from across the state (the author was one of the nominees selected to participate). Figure 1 indicates the number of principals selected from the various regions.

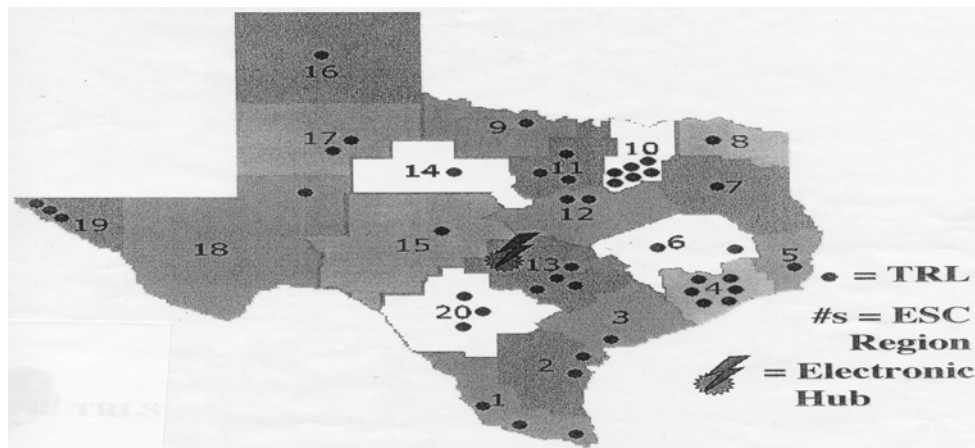


Figure 1. Texas Reading Leaders Statewide Network



State and other professional agencies were also involved in the project. Those agencies included: the Texas Higher Education Coordinating Board (THECB); the Association for Supervision and Curriculum Development (ASCD); and Just For the Kids.

The 50 Texas Reading Leaders received intensive training in current research related to the development of reading skills and instructional leadership over the course of one year, from 1999-2000. Materials for the forums, including the Principals Knowledge of Literacy Questionnaire, a video documentary showing discussions of the research and samples of what should be occurring in the classrooms, were developed.

Figure 2 provides a graphic representation of the goals of the TRL Project.

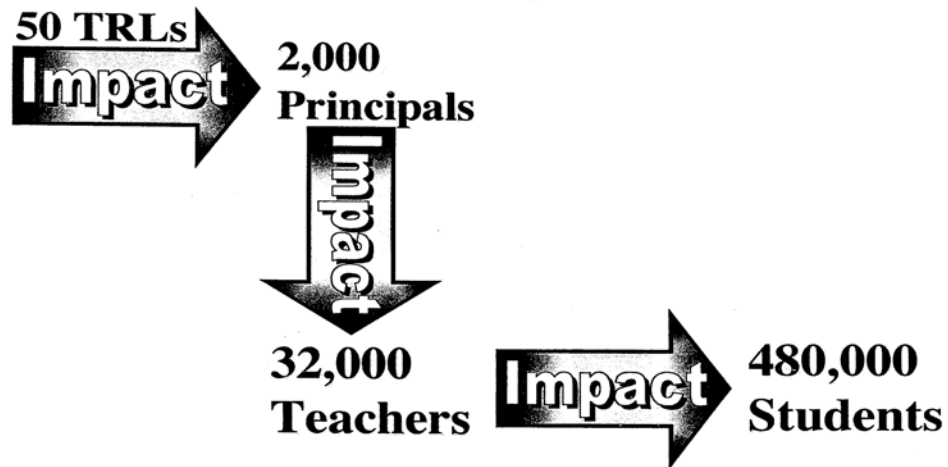


Figure 2. Goal for Texas Reading Leaders: To reach all of the principals, teachers, and students in the state.

The desired outcome of the State, for Texas principals, was to provide the research that would enable them to develop an understanding of the critical concepts in early reading that could be used in evaluating the reading programs on their campuses

and making critical instructional decisions relative to these programs. Through these forums, principals would be able to strengthen and clarify their understanding of instructional leadership practices that have the highest pay off in terms of positive impact on student performance in reading. This clarity, strength and conviction in reading instructions can enhance a school leader's ability to stay focused on the school's primary mission and to provide the support to meet the school's goals. There are certainly other tasks and behaviors that have positive or negative effects, either on instruction in general or specifically on reading. For example, research conducted in four top reading schools in the state found that all principals expanded their leadership role to include other administrators and teachers. These other administrator tasks and behaviors were also explored by the TRLs.

The Principals Knowledge of Literacy Questionnaire (Appendix A) was developed by the participants of the Texas Reading Leaders Initiative following the year of training and research respective of the components of an effective early literacy program. The 74 questions were designed to correspond to the following researched based components that enhance success in reading: (a) vision, (b) reading instruction, (c) progress monitoring, (d) instructional grouping, (e) using achievement data, (f) interventions for struggling readers, and (g) sustaining effective practices. The results of the questionnaire will be discussed in Chapter IV.

The Likert format utilized in the questionnaire included a list of responses that increased in intensity and included a category that provided the responder the opportunity

not to select an answer with which he or she was not completely satisfied or familiar. The survey contained 68 questions with the highest score of 5 while six questions generated a top score of 1. Each of these questions was scored reversing the process and equating the score to its equivalent (i.e. 1=5, 2=4, 3=3, 4=2, 5=1) to ensure scoring consistency and equity. Question 40 was omitted after the researcher determined that the wording made it difficult for the respondents to answer with any degree of confidence. The decision was made based upon the fact that of the questionnaires returned, 72 percent of the respondents left this question blank or provided scenarios that would justify a particular score.

The Principals Knowledge of Literacy Questionnaire was administered during the spring and summer of 2001. The mailing included a personalized letter, the questionnaire, and a postage paid envelope. Information in the personalized letter included the name of the University of North Texas faculty sponsor and chairperson of the research committee, Dr. Carrie Ausbrooks, and Peter Shillingsburg, chairperson of the Institutional Review Board. All postage paid envelopes were pre-addressed and included a school code number to facilitate follow up mailings. As each survey was returned, it was assigned a letter code and filed with the appropriate TAAS information. After the first mailing, 24 of 51 surveys had been returned; 22 surveys were useable (respondents who had not been on their campuses for a minimum of three years were not utilized in the project).

Three weeks later, the first follow-up was sent to non-respondents. In this second mailing, a new personalized letter was sent along with a second copy of the

questionnaire, as well as a self-addressed postage paid envelope. These efforts resulted in 10 additional useable questionnaires.

A second follow-up with an additional packet was sent in August 2001, with a requested deadline of September 30, 2001. Non-respondents were contacted by phone. An additional 12 surveys were returned, 10 were documented as useable. A total of 46 Principals Knowledge of Literacy Questionnaires were returned (90%) and 42 were useable (82%).

The individual campus AEIS reports, including individual campus TAAS scores, were obtained from the Texas Education Agency: Division of Accountability and Student Support Services and provided demographic data relative to the selected campuses. The reading achievement scores of third grade students for a three-year period (1998, 1999, 2000) as measured by the state test, the Texas Assessment of Academic Skills, was averaged and utilized as the dependent variable in this correlational study.

The quantitative data relative to instructional leadership was determined from the Principals Knowledge of Reading Questionnaire results and demographic information of individual campuses (AEIS). Standard statistical procedures were used to analyze the data by accountability ratings (Exemplary, Recognized, and Acceptable) of the Title I schools in Region 9. The analysis of the data from the questionnaire using a Likert scale format and the TAAS scores were rank ordered and examined to determine “the degree to which variations or differences in one variable are related to the differences in another variable” (McMillan, 1996, p.171). A comparative assessment was prepared to determine the extent of the correlation (if any) that exists between the three-year average of the

TAAS reading scores (1998, 1999, 2000) of third-grade students in Title I schools with principals who have a strong background in reading (as defined by the questionnaire) and those with a cursory knowledge of an effective reading program. The third grade TAAS scores and the questionnaire scores provided the quantitative data.

### Qualitative Instruments

Purposive interviews, in the form of Principal Interview Protocols (Appendix B), were conducted based upon the outlier information from the correlational data obtained from the questionnaires and the TAAS scores. Two principals from schools whose third-grade students consistently demonstrated success on the TAAS as indicated by a score of 85 or above on the Texas Learner Index (TLI); and two principals whose students were labeled as frustrated or non-successful (TLI below 85) were selected to be interviewed. Two schools initially selected to participate declined and two others were then selected.

The author asked the same open-ended questions of the selected four principals in a precise manner in order to refine the research study (Campion & Hudson, 1994). The questions were aligned with the seven subsets identified in the Principals Knowledge of Literacy Questionnaire. The interviews were conducted with the principals and provided the researcher with the opportunity to seek more comprehensive knowledge of the internal structure of the specific schools identified as a result of the categorical analysis. The interview format and design were developed using the informational research from the General Accounting Office (1991) in Washington D.C. The information stated that in a structured interview, the evaluator asks the same questions of several individuals in a precise manner, offering each individual the same set of possible

responses. In contrast, an unstructured interview contains open-ended questions that are not in a precise structured manner. The author utilized a combination of the two formats. The interview was structured in that the same questions were asked each participant however, the questions were open-ended. The Purposive interviews were developed based upon the categorical survey analysis and insight was gained that is not readily available from a scatterplot or a correlational coefficient. The results of these interviews are discussed in Chapter IV.

### Data Analysis

This section describes the data analyses procedures utilized in this study. The purpose of the analyses was to gather and review the results of the principal questionnaires, the interviews and their correlation to the three-year average of the performance of third-grade students on the state test (TAAS), as well as the interviews.

There are several ways to measure the association between two variables. Two methods were utilized in this study to insure the reliability of the statistical findings. The first version employed a mathematical “rank-randomization” process called Spearman’s rho ( $\rho$ ). This test is used to measure the linear relationship between two variables. It differs from the Pearson’s product correlation only in that the computations are done after the numbers are converted to ranks. This statistical method was selected because there were less than 50 paired samples containing finite values and there were no tie scores (Best & Roberts, 1975). Spearman’s rho can be computed with the same formula for the Pearson’s correlation using the ranked data.

The formula to determine the correlation is

$$r = \frac{\sum (x-x') (y-y')}{\sqrt{\sum (x-x')^2 \sum (y-y')^2}}$$

$$r = 1 - \frac{6\Sigma D^2}{N(N^2-1)} \quad (\text{Leedy, 1997}).$$

The correlational coefficient is always a number between  $-1$  and  $+1$ . This number provides the magnitude and direction of the association between the selected variables.

The magnitude is the strength of the correlation. The closer the correlation is to  $+1$  or  $-1$ , the stronger the correlation. If the correlation is  $0$  or very close to  $0$ , there is no association between the two variables.

The direction of the correlation determines how the two variables are related. If the correlation is positive, the two variables have a positive relationship (as one increases, the other increases). If the correlation is negative, the two variables have a negative relationship (as one increases as the other decreases).

The steps used to calculate the Spearman's rho correlation of the variables included the following steps:

1. A list of the principals responding and their representative schools studied were coded with letters of the alphabet.
2. Each school studied was assigned a rank as determined by the three year average of the third grade TAAS.

3. Each school studied was assigned another rank as determined by the Principal Knowledge of Literacy Questionnaire.
4. For each school studied, the difference of the two variables was determined and represented by the letter (D).
5. The square of the rank order differences was determined. The squared differences were determined and represented by “sigma D squared.”

The results of this Spearman’s rho analysis will be discussed using a tabular format in Chapter IV.

The second method used to determine the correlation of the research variables was the non-mathematical scatterplot. The two manipulated and responding variables were denoted by (x) and (y). In this study, the TAAS Scores were represented by the letter (x) and the Principals Knowledge of Literacy Questionnaire were represented by the letter (y). The correlation coefficient is positive if (y) tends to increase as (x) increases; that is, if a plot of (y) versus (x) slopes upward. Conversely the correlation is negative if the (y) tends to decrease as (x) increases that is, if a plot of (y) versus x slopes downward. If the points fall exactly on a straight line, then Spearman’s rho is equal to (+1), which indicates a strong relationship between the two variables. If the points slope downward, ( $\rho$ ) is equal to (-1), and this indicates an inverse relationship between the variables. The closer the points are to forming a straight line the easier to predict the data. As previously stated, if there is no correlation or a weak association between (x) and (y) then ( $\rho$ ) will be near 0. Interpretations of the scatterplot include an analysis of the strength of the correlation relative to the overall shape and direction of the ellipse. An



overall shape close to a zero indicates a low strength. An overall shape close to a straight line on the plot could indicate an ability to predict the scores on TAAS based on the survey results. This line would indicate high strength (personal communication with Dr. John Dowd November 5, 2001). With respect to the direction, an elliptical pattern from lower left to upper right indicates a positive relationship. Conversely, an elliptical pattern from upper left to lower right indicates a negative relationship. No perceptible pattern at all indicates no relationship exists between the two variables. Results of the scatterplot will be discussed in Chapter IV. Utilizing both the mathematical rank order Spearman's rho and the non-mathematical scatterplot for the statistical analysis of the quantitative data provided a more reliable format for the results.

#### Summary

The hypothesis of this research was to determine the relationship between principals knowledge of early literacy as measured by the Principal Knowledge of Literacy Questionnaire (and other principal behaviors) and the reading achievement of third grade students as measured by the third grade TAAS reading test. The nature of this research lent itself to the use of both quantitative and qualitative methodologies.

The Principals Knowledge of Literacy Questionnaire (Appendix A), the TAAS scores and the purposive Principal Interview Protocols (Appendix B) were used to provide a systematic and accurate foundation for the premises of this study. Standard correlational statistical procedures were used to analyze the quantitative data--principal knowledge vs. student achievement. Triangulation of the TAAS data, the principal

questionnaire, and the interviews were utilized to reduce the threats to the reliability and validity of the study. The results of this data analysis are provided in Chapter IV.

## CHAPTER IV

### ANALYSIS OF THE DATA

Chapter III provided a description of the facts and characteristics of the selected population, as well as the quantitative and qualitative methodologies used to provide an accurate and systematic approach to obtain standardized information relative to early literacy. This chapter summarizes the results using a format that includes narratives, tables, and graphics.

The problem of this study was to research the principal behaviors that will positively impact reading. This correlational research specifically investigated the relationship between the principals knowledge of early literacy and the reading achievement of third-grade students.

This chapter has been divided into three sections. The first section includes the research questions, the hypothesis, and the methodologies used to analyze the data. The second section represents the results of the qualitative and quantitative data analysis. The final section concludes the chapter with an inclusive summary of the entire chapter

#### Research Questions

The purpose of this study was to investigate the components of early literacy that contribute to the success and/or failure of students to read proficiently by third grade. This study focused on the following research questions.

1. Is there a correlation between administrators who exhibit a high level of instructional leadership and knowledge of the components of an effective early literacy program and the reading performance of young students as measured by the third grade TAAS test?
2. What behaviors are exhibited by principals who lead campuses where students are successful or non-successful in early literacy development?

#### Research Hypothesis

After these two questions were reviewed the hypothesis for this study was developed. To reiterate, the hypothesis stated: A statistically significant high, positive correlation exists between administrators who exhibit a high level of understanding of the components of an effective early literacy program as measured by a comprehensive reading questionnaire and the academic reading achievement of third grade students as measured by the Texas Assessment of Academic Skills (TAAS).

#### Data Analyses

This section will describe the data analyses procedures utilized in this study. The purpose was to gather and review the results of the Principals Knowledge of Literacy Questionnaires, and their correlation to the three-year average of the performance of third grade students on the state test (TAAS). The results of the Principal Interview Protocols will also be examined.

#### Quantitative Analysis

There are several ways to measure the association between two variables. The statistical methods used to determine the relationship between the measure of the

principals knowledge of early literacy and student reading achievement were analyzed in three stages. In the first stage, for each school studied, the first variable (the three year average of the third grade TAAS scores) was ranked from the highest to the lowest schools average. The second variable was the Principals Knowledge of Literacy Questionnaire. Table 6 provides results of the scores of each administrator on the individual subsets of the questionnaire.

School	Vision	Rdg Inst	Prgrs Mnt	Inst Grp	Ach Data	Intrv Stg	Eff Prc
A	26	20	105	29	36	45	29
B	23	22	96	22	24	48	35
C	24	22	107	21	38	49	28
D	28	21	104	23	30	50	30
E	28	21	119	24	36	49	36
F	29	24	107	25	32	48	33
G	29	24	109	25	32	47	34
H	23	22	102	24	32	42	29
I	24	21	101	25	35	48	30
J	25	18	105	21	32	49	29
K	28	20	105	28	31	47	32
L	29	26	106	31	39	46	34
M	28	19	97	24	35	45	29
N	22	22	112	26	40	47	30
O	27	26	117	33	39	49	31
P	26	22	101	26	38	46	30
Q	26	17	111	25	36	47	37
R	26	22	118	22	37	53	28
S	25	23	105	23	35	47	37
T	21	21	97	24	30	42	28
U	25	21	94	24	34	43	32

Table 6 continued

Reading Survey Subsets Results								
School	Vision	Rdg Inst	Prgrs Mnt	Inst Grp	Ach Data	Intrv Stg	Eff Prc	
V	26	25	101	27	32	40	36	
W	28	19	106	25	35	44	36	
X	29	22	104	26	33	46	28	
Y	21	9	80	7	21	37	27	
Z	29	26	120	24	40	52	34	
AA	24	23	103	20	39	48	25	
BB	28	20	121	24	40	52	33	
CC	26	17	35	24	35	42	33	
DD	26	24	98	17	33	47	32	
EE	18	22	97	22	33	32	30	
FF	26	21	100	24	38	47	32	
V	26	25	101	27	32	40	36	
W	28	19	106	25	35	44	36	
X	29	22	104	26	33	46	28	
Y	21	9	80	7	21	37	27	
Z	29	26	120	24	40	52	34	
AA	24	23	103	20	39	48	25	
BB	28	20	121	24	40	52	33	
CC	26	17	35	24	35	42	33	
GG	24	21	104	25	33	40	28	
HH	24	38	94	24	38	45	29	
II	25	22	107	25	32	41	30	
JJ	27	23	112	18	33	42	30	
KK	24	21	105	23	29	46	26	
LL	26	26	105	24	32	46	34	
MM	28	25	111	23	36	46	33	
NN	26	21	104	25	39	49	32	
OO	27	23	113	27	39	49	36	
PP	24	22	94	25	31	44	28	

*Note:* The top scores for each division were: Vision – 30; Reading instruction –30; Progress monitoring – 135; Instructional grouping – 35; Achievement Data – 40; Intervention for struggling readers – 55; Sustaining effective practices – 40; Total – 365.

The top score attainable was 365. Table 7 provides these cumulative scores by campus.

School	Survey	School	Survey
A	290	V	287
B	267	W	293
C	289	X	288
D	286	Y	202
E	313	Z	325
F	298	AA	282
G	300	BB	288
H	274	CC	274
I	284	DD	287
J	279	EE	255
K	291	FF	288
L	311	GG	280
M	277	HH	282
N	299	II	282
O	323	JJ	291
P	289	KK	274
Q	299	LL	286
R	306	MM	302
S	295	NN	296
T	263	OO	291
U	273	PP	268

These scores were then ranked from the highest to the lowest scores. The same variables (TAAS and the questionnaires) were then examined using a mathematical formula to calculate the relationship between the two variables represented score by the Spearman's rho ( $r$ ). A description of the information from these matrices was developed to determine the homogeneity or heterogeneity of the data in terms of statistical

dynamics. “The larger the decimal value, the greater the homogeneity of the data.”

(Leedy, 1997)

The correlational coefficient is always between  $-1$  and  $+1$ . If the correlation is near 0, there is a weak correlation. Table 8 lists the rank values for Spearman’s rho with respect to average of the third grade TAAS scores and the principals knowledge of early literacy.

School	TAAS X	Survey Y	D	D <sup>2</sup>
PP	1	38	-37	1369
LL	2	26	-24	576
D	3	25	-22	484
Q	4	8	-4	16
II	5	28	-23	529
N	6	9	-3	9
R	7	5	2	4
X	8	20	-12	144
I	9	27	-18	324
B	10	39	-29	841
W	11	13	-2	4
GG	12	31	-19	361
G	13	7	6	36
FF	14	21	-7	49
K	15	14	1	1
DD	16	23	-7	49
O	17	2	15	225
S	18	12	6	36
F	19	10	9	81



Table 8 continued

Correlations: Rank-ordered TAAS & Survey scores: (mathematical)				
School	TAAS	Survey	D	D <sup>2</sup>
	X	Y		
U	20	37	-17	289
OO	21	15	6	36
L	22	4	18	324
JJ	23	16	7	49
NN	24	11	13	169
AA	25	29	-4	16
V	26	24	2	4
KK	27	34	-7	49
Z	28	1	27	729
HH	29	30	-1	1
MM	30	6	24	576
BB	31	22	9	81
P	32	18	14	196
E	33	3	30	900
J	34	32	2	4
T	35	40	-5	25
CC	36	35	1	1
EE	37	41	-4	-16
H	38	36	2	4
M	39	33	6	36
A	40	18	22	484
Y	41	42	-1	1
C	42	19	23	529

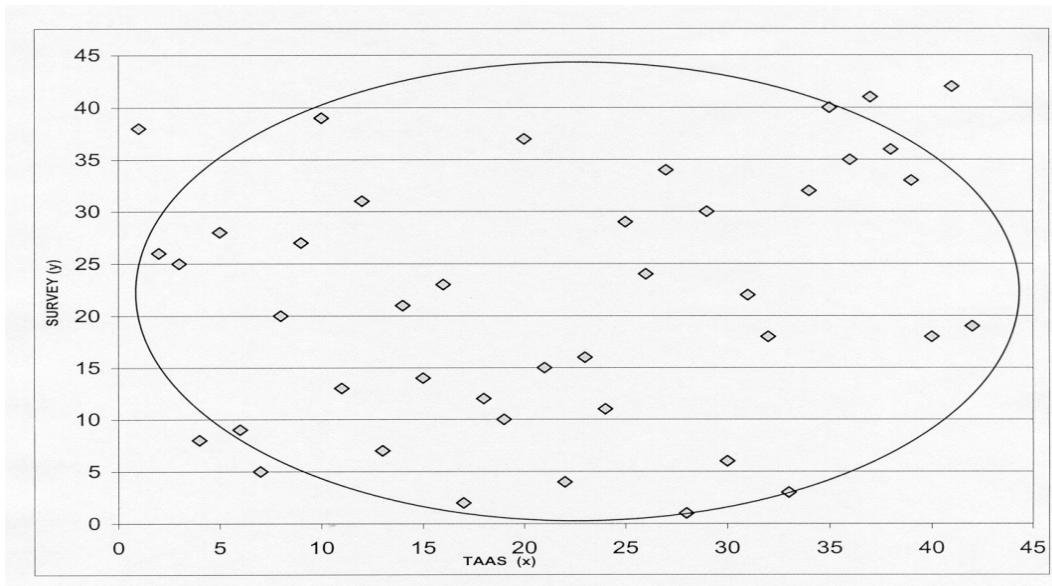
*Spearman's rho (p) Correlation TAAS and Survey = 0.216*

This information was placed in the formula to calculate the Spearman's rho ( $p$ ) correlation coefficient. Using 40 degrees of freedom (  $N-2$ ), and a significance level at

.05% the results were analyzed using the table in the Isaac and Michael manual (1995, p. 252,). A correlation of .3044 was required to establish a significant, positive relationship between the two variables. The result of the correlation of TAAS scores and the questionnaire equaled a Spearman's rho ( $p$ ) of 0.216. This indicates a non-significant result since .216 is less than .3044. Therefore, there appears to be no clear correlation between a principal's knowledge of early literacy and student performance.

In the second stage, the relationship between the criterion, or dependent, variable (TAAS) and the independent variable (questionnaire results) was rank ordered and plotted as pairs of scores on a scatterplot to provide a visual inspection of the relationship between the variables. This information provided a broad overview of the relationship between the principals' knowledge base and the resultant impact upon student reading achievement. Ryan and Joiner (2001) stated, "a correlation coefficient can be quite misleading at times, and a scatterplot may provide a better view of what is really going on" (2001, p. 297). Using the data from Table 8, each school was plotted. The scatter plot utilized the (y) axis for the questionnaire and the (x) axis for the TAAS Scores. After the data were entered, a line was drawn around the group to view its overall shape

Figure 3 provides the results of the scatterplot. The interpretation of the shape and direction of the final ellipse indicated no perceptible pattern at all. As discussed in Chapter III, the non-existence of a specific shape indicates no, or a very weak correlation between student performance and the reading knowledge of the principal.



In the final stage of the research, both the scatterplot and the Spearman's rho ( $\rho$ ) were further scrutinized to provide the researcher with a more critical interpretation of the information. This data provided a more in-depth, critical description of any "outlier" data that developed as a result of this comparison. Schools with similar demographic data were identified as highly "successful" or "non-successful" with respect to student achievement, and purposive interviews were conducted.

#### Qualitative Analysis

A qualitative approach was implemented to go beyond the simple statistical description to probe the meaning within the data. Purposive interviews (Principal Interview Protocols), were developed based upon the categorical survey analysis and insight was gained that was not readily available from a scatterplot or a table.

The purposive interviews were conducted to determine if some common characteristics could be ascribed to principals and campuses who were or were not

experiencing success in reading for their third grade students. The schools selected were identified as the “outliers.” These schools aggregated at both ends of the spectrums on Tables 8 and Figure 4. TAAS scores, campus size, and the percent of low socio-economic students were categorized and selections were based on this information. The socio-economic level was set at 48 percent in order to correlate with the State of Texas demographic data (Table 2). Selections based on TAAS scores were then categorized by campus size, with an outlier in each range from the highest TAAS scores within that campus set, labeled “Successful” to the lowest TAAS scores in that same comparable enrollment group, and labeled “Non-successful.”

Two schools were selected with populations of 0-350 (small), and two campuses were selected with populations ranging from 351-600 (large). It should be noted that one school in the small category “Non-successful” and one school in the larger category, “Successful” were asked to be participate in the interview, but they declined to participate. The author selected the next two campuses, based upon the same criteria. Four administrators were selected for inclusion in the interview process. This information is depicted on Table 9

School Selected for Interviews				
	TAAS (98-00)	TAAS (98-00)	TTL	% ED
Successful Schools	TAAS (3 <sup>rd</sup> )	TAAS (ED)		
PP	100	100	236	63.4
R	95	91.1	510	59.1
Non-successful Schools				
C	70.5	70.7	340	74.7
J	84.2	81.7	545	71.2

*Note.* Schools H and II declined to participate in the interview process Campuses Rand J were selected to replace them. TTL: total enrollment; %ED: economically disadvantage percentages.

The two campuses that consistently demonstrate success were identified as Campus PP and Campus R. Although different in size, and specific programs, they do show evidence of some common characteristics that are clearly discernible.

Both campuses had a large degree of autonomy with respect to curricular, budgetary and staffing decisions that impacted their campuses. Each had a strong site-based decision making (SBDM) team that met on a consistent basis to discuss curriculum, student performance, and relevant staff development. The superintendents, of each of these campuses, were highly visible, innovative, and knowledgeable of current instructional trends and supportive of the campuses. They met often with the principals to discuss curriculum, student performance and relevant staff development opportunities for themselves and the staff, which results in a cohesive pedagogical approach to reading instruction on these campuses. The philosophy of these principals reflected a clear sense of empowerment coupled with responsibility for themselves and their respective staffs. This philosophy was prevalent in these districts, and there was limited micro-management in evidence.

The staff on each campus was fairly stable. Each principal reported fewer than one or two staff positions available each year, and these were often the result of attrition through retirement. When positions were available, the campuses were allowed to self-select the replacements at the site. This practice perpetuated the cohesive learning environment indicative on the campuses.

Local control over educational and budgetary decisions and a non-tracked reading program that focuses accountability on student performance was a primary focus on both

campuses. Teachers on these campuses utilized specific diagnostic instruments to identify students who were succeeding as well as those who may be in need of additional assistance. Each campus was very proactive as they focused instruction on preventing reading failure rather than remediating failed students. The Texas Primary Reading Inventory, Individual Reading Inventories, and TAAS are examples of standardized data used to measure student success. Instructional strategies within the classroom including “running records, guided reading, and anecdotal data were also utilized.

On campus R, the staff utilized this data to establish benchmarks for student progress at each grade level. When a student failed to meet a certain benchmark, prescribed support began immediately for that student. The prescribed intercession could range from classroom intervention by the regular teacher to services for identified students provided by trained Reading Recovery teachers. These clearly delineated benchmarks, proficiencies, and acceleration strategies defined the reading program goals and their relationship to other district programs and practices. The principal on this campus also participated in all campus based staff development activities and made it a point during her formal and informal observations to look for and reinforce the specific practices the teachers had learned.

Both administrators on these successful campuses spent as much time as possible in the classroom to ensure that the instruction time was used for those concepts and strategies that encouraged students to develop the reading skills they would need to be successful. Instructional time was sacrosanct and each strives to ensure that instructional

time was uninterrupted by extraneous events (e.g., announcements, phone calls, visitors, assemblies).

These two principals acknowledged the importance of a classroom environment which included quality learning multi-sensory materials as well as classroom sets of diversified books at various reading levels as necessary tools for every reading teacher. They also identified the use of balanced computer-based technology that promoted children's active learning. High expectations, for student success were elements common to a learner-centered classroom, where instruction was integrated, inclusive, and authentic for all students.

When questioned about the specific goals for their campus this school year (2001) the principal on campus R sited the following four objectives for the year. They included: "a focus on not only the academic growth but also the social and emotional development of our students is a continuing goal for all of our students; ensure teachers have a clear understanding of the TEKS and are effectively implementing and applying them in the four core disciplines including, language arts, science, social studies, and mathematics; to re-visit school climate and develop instruments to gauge its impact on all stakeholders; and finally to review, ways to improve the overall climate on the campus."

On campus PP, the primary goal identified by the administrator was "to begin the process of implementing the strategies developed by the Site Based Decision Making Team and addressed in the Campus Improvement Plan for 2001-2002." In 2000-2001 the campus, including students, parents and community members spent the year carefully researching the change process required to move from a Targeted- Assisted Title I

campus to an Schoolwide campus. After careful investigation and involvement from all of the stakeholders, the campus made the decision to apply for an Educational Flexibility Waiver from the Texas Education Agency. With local support from the Board of Trustees and final approval by TEA, Campus PP accomplished this goal on July 1, 2001.

Emphasis on improving the academic programs for all students on this campus was to become the focus in 2001-02.

Campuses C and J (Non-successful) also demonstrated some positive attributes that were beneficial for students, however there were some distinct differences. Both principals acknowledged that improvement on TAAS scores was the primary goal for their campuses for the coming year.

The principal on Campus C credited the Johns Hopkins Program, Success for All, with improving the reading scores on his campus in 1998 and 1999. The drop in the reading scores in 2000, the administrator suggested, was possibly the result of a shift in focus on the campus from a regular education site to an engineering magnet campus. This change provided the opportunity for students throughout the district to “choose” this elementary campus. Extensive training in learning and teaching with a focus on an engineering theme was an “involved, often exhausting process,” this principal shared. The engineering curriculum had been challenging for students as well as the staff. Higher order thinking opportunities abounded with this open-ended process of engineering projects and curriculum. Using materials, tools, technology, and project-based instruction had allowed for academic challenge in math and science. It was anticipated that the emphasis on thematic math and science units would have a positive



impact on reading achievement on this campus in the coming years, although a definitive plan for reading had not been established

When asked about access to a challenging curriculum, the principal on Campus J noted that the Texas Essential Knowledge and Skills (TEKS) were the primary focus of curriculum and instruction. In response to the question relative to any new content or skills in the kindergarten through third grade reading program, he responded, “We have a strong emphasis again on phonics in the early grades, as well as open ended grouping.” The Computer Enhanced Instruction (CEI) lab a computer based program for individualized instruction was now available to students in the primary grades. The lab was the primary tool utilized by the staff for struggling students.

Decisions relative to reading, allocation of time and budgetary resources, and materials and strategies were made by district committees with recommendations forwarded to the administrators on Campus J. “Teachers focused approximately one and one-half hours per day on reading, with multiple opportunities for spontaneous reading throughout the day.” When questioned for more information about spontaneous reading, he commented, “Oh, you know, free reading.”

On Campus C, decisions concerning reading materials were made at the District level. “Instruction focuses on TAAS objectives and the TEKS. A district-developed syllabus also determines the focus of our instruction.” Campus-Based Teams built the budget and determined the percentage of dollars allocated to reading. Time allocated for reading instruction was set by the staff. This time varied within, as well as, between the

grade levels. The average time spent on reading instruction ranged from a minimum of one hour to a maximum of three hours daily.

Both campuses utilized tutors and small group instruction through pullout programs to work with students who were struggling. On campus C, a student might be referred for further testing for a learning disability, while campus J enhanced instruction with reading specific computer programs.

Administrators on each of these campuses continued to express concern about the large amount of worksheets and practice tests packets utilized by teachers to prepare students for TAAS, yet neither could provide a suitable alternative. Each agreed that a majority of their school day was spent on organizational management activities, and while both wished they could spend more time on instructional venues, neither viewed that as a possibility in the foreseeable future.

#### Summary

As a result of the quantitative analysis of the statistical data, it was determined that a non-significant correlation exists between a principals knowledge of early literacy and student achievement. It is evident that while a definitive knowledge of the major components of early achievement literacy does not in and of themselves assure success, some common elements that do enhance student reading achievement exist in schools that are successful. These implications will be discussed in Chapter V.

## CHAPTER V

### SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

This final chapter provides a brief summary of the major findings of this study. Recommendations and implications for further research and conclusions are also included in this chapter.

#### Summary of the Study

The purpose of this study was to review the factors that impact early literacy development, including causal aspects that may impede literacy and instructional programs and strategies that promote successful reading proficiencies and cognition. Specifically, this study looked at the role of the building administrator in this process. Research with respect to the correlation between the principals' knowledge of reading specific information and student success is limited. This study adds to this aspect of the research.

Reading is the foundation of learning. When children first begin to read and understand its magic, their excitement and energy is contagious. It is no overstatement to say that reading unlocks the world for children (Moats, 1999). The research indicates virtually every child can succeed in principle. The number, who will succeed, in fact, depends on a variety of components including the amount of human and fiscal resources the educational community is willing to devote to ensure success for all its students. Educators must also demonstrate a willingness to reconfigure the resources to meet the

needs of individual students and revisit those resources already devoted to remedial and special education related services (Huberman, 1984). The key issue for at-risk students is not if additional resources will be necessary, but when should they be provided. By every standard of evidence, logic, and compassion, resources used preventively make more sense than the same resources used remedially. At the policy level, reading researchers believe it means the education community must choose to either eradicate failure or allow it to continue. What cannot be done is pretend there is no definitive choice. ( Murphy & Pimentel, 1996).

This study focused on the 42 principals in Region IX who served as instructional leaders of Title I: Part A elementary campuses. Two research questions and one hypothesis were addressed.

1. Is there a correlation between administrators who exhibit a high level of instructional leadership and knowledge of the components of an effective early literacy program as measured by the Principals Knowledge of Literacy Questionnaire and the reading performance of young students as measured at the third grade level by the reading Texas Assessment of Academic Skills (TAAS) test?
2. What behaviors are exhibited by principals who lead campuses where students are successful or non-successful in early literacy development?

The hypothesis sought to determine if there exists a significant, high, positive correlation between administrators who exhibit a high level of understanding of the components of an effective early literacy program as measured by a comprehensive

reading questionnaire and the academic reading achievement of third grade students as measured by the (TAAS).

### Research Methodology

The design of this study utilized quantitative and qualitative methodologies to test the hypothesis. The quantitative data was obtained from the Principals Knowledge of Literacy Questionnaire (used as a measure of the level of knowledge of the principals) and the averaged reading scores from students in the third grade who took the TAAS reading test in 1999 through 2000. The Spearman rho ( $\rho$ ) mathematical “rank randomization” test was used to measure the linear relationship between the principals knowledge of early literacy and its impact on student achievement. This statistical method was selected because there were less than 50 paired samples containing finite values and there were no tie scores (Best & Roberts, 1975).

The relationship between the criterion or dependent variable (TAAS) and the independent variable (Questionnaire results) was then plotted as pairs of ranked scores on a scatterplot to provide a visual inspection of the relationship between the variables. The principals knowledge of literacy was defined by the responses on the Principals Knowledge of Literacy Questionnaire and measured by their cumulative score on this instrument. The achievement level of the students was defined by the TAAS scores and measured by the average of their reading scores for three years (1998-2000) on this instrument. This information provided a broad overview of the relationship between the principals knowledge-base and the resultant impact upon student reading achievement.

In the qualitative stage of the research, the results from the scatterplot and the Spearman's rho statistic were further scrutinized to provide the researcher with a more critical interpretation of the information. This data provided a description of any "outlier" data that developed as a result of this comparison. Four principals on four campuses with similar demographic data were identified as highly "successful" or "non-successful" with respect to student achievement and purposive interviews were conducted using the Principal Interview Protocols with these selected administrators.

#### Summary of the Findings

A summary of the findings of the research questions and the hypothesis is addressed in this section. A review of the results of the research questions is followed by the conclusions of the hypothesis.

#### Question One

Question one sought to determine if a relationship existed between building principals who demonstrated a strong instructional reading background and the performance of young students on a state criterion referenced test. Utilizing the Spearman's rho ( $\rho$ ) statistic, it was determined that a correlation of .3044 was needed to indicate a significant, high, positive correlation between literacy knowledge and students achievement. The result was a Spearman's rho ( $\rho$ ) correlation of .2160 which indicated a very low, positive correlation. This suggests no significant correlation existed between a principal's knowledge of early literacy and student achievement. The non-mathematical scatterplot was then utilized to determine if the data, when entered in this format, would support the Spearman's rho statistic. Results indicated no perceptible shape (the points

were not linear, but rather, scattered all over the graph) which supported the Spearman rho findings of no correlation or a very low, positive correlation between the two variables (students performance and the reading knowledge base of the principals). This finding neither agreed nor disagreed with current research as there are very limited studies relating to this specific research topic. It, instead, added new information to the current research.

#### Question Two

What behaviors are exhibited by principals who lead campuses where students are successful or non-successful in early literacy development?

Even though this study indicated a weak correlation between student success in reading and a principal with a strong background in early literacy, further research and the purposive interviews provided some insightful information. In this study successful principals with high levels of student achievement consistently demonstrate some common characteristics including:

1. The ability to empower strong reading teachers and support their efforts as they do their job. As one administrator commented, "...leadership is not found in just the principal alone" (Interview, 2001). An astute administrator must provide competent teachers with the capacity to have ownership of the learning goals in their own classrooms. Selection of these teachers with expertise in teaching literacy is an important skill demonstrated by effective principals (Hoerr, 1996). "This broader concept of leadership recognizes what teachers have known for a long time and what good schools have capitalized on since the beginning of time,

namely, expertise is generally distributed among many, not concentrated in a single person” (Lezotte, 1997, p.76).

2. While extensive knowledge of early literacy does not ensure student success, the administrators who were interviewed believed at least a rudimentary understanding of early literacy skills was beneficial. The effective principals interviewed, observed teachers and supported their acquisition of skills through appropriate professional development activities. As one administrator shared in a report by Olson (2002), “If I am going to observe them (teachers) teaching any of the components of an effective reading program from phonemic awareness to effective fluency and comprehension strategies, I need to have the background to evaluate the individual classrooms” (Olson, p.5).
3. Autonomy, or shared-decision-making was consistently modeled by the successful principals. Providing choices of resources including textbooks and other curricular materials to support these literacy skills, aggregating and disaggregating test scores to determine the specific areas of improvement, collaboratively appraising the value of current and new instructional programs and translating the entire process to parents, businesses, and community members who have a vested interest in student success supported the key elements of the idea that power shared is power multiplied. Although this was not a new concept, “It does, require thinking ahead of time to determine which issues are appropriate for collegial decisions and which issues should be resolved by the principal” (Hoerr, 1996, p.380). Recommendations and control regarding classroom budgets,



schedules, and selection of classroom resources were decided in collaboration with the teachers on these successful campuses.

4. Successful principals earmarked resources for professional development and they participated in the professional development activities with their staffs. They could and did model effective teaching practices for the staff as appropriate.
5. Visibility and accessibility was also identified as a key feature of strong effective leaders. They consistently espoused a philosophy that included a clear and focused belief that all students can learn. Time after time, they provided the opportunity for all students to master the reading curriculum, through effective evaluation procedures that reflected knowledge of what was and should be occurring in the classroom. They also made every effort to ensure that instructional time was sacrosanct.
6. The principal remains the chief catalyst for effective instruction on the campus, however, they need not be the dispenser of all subject knowledge and instructional expertise, however they must be the champion of “Learning for All,” whatever it takes (Lezotte,1997). The successful principals, who were interviewed, provided time for teachers and principals to engage in significant communication and collaboration relative to the “new learning” and to classroom reading expectations. They engaged in meaningful, relevant dialogue with parents that included information that would allow the parents to have meaningful access to the system that educates their children.

The principals on the campuses identified as non-successful, also demonstrated some common characteristics.

1. They envisioned their roles as predominately organizational or building managers as opposed to instructional leaders. While they articulated a belief that all students can learn, and they clearly wanted the children on their campuses to be successful, that success was often measured only by performance on the state test.
2. These frustrated principals have limited autonomy with respect to decisions that impact their campus such as budget, professional development, or resources. These decisions are made at the District level and passed on to them, in top-down format.
3. Educational resources such as people, budgets time and facilities were viewed through the lenses of organizational management as opposed to systematic structures that could be utilized to support teaching and learning.
4. While they demonstrated a cursory knowledge of best practices in early literacy, they leave the translation of that information to the classroom teachers. Limited opportunity was provided for collaborative planning among the teachers or with the teachers and the administrators.

The findings from this study are consistent with the conclusions from previous research. This information was reported in the literature review found in Chapter II.

## Recommendations for Future Research

In the course of the research, certain areas were identified which are recommended for further study. The following suggestions are included in this section.

Rigorous research is needed to understand the potential of computers in reading instruction. Each of the four principals interviewed utilized technology on their campuses to enhance the reading instruction for their students. However, none could clearly articulate the role the technology played in student achievement. While various software programs continue to make claims concerning the effectiveness of their programs, a closer examination often reveals that the “research” was conducted by the company advertising the product. Often the reliability and validity of the information was questionable. Independent studies could provide educators with viable data relative to this important instructional tool.

Further studies must continue to evaluate previously accepted reading practices to determine their actual impact on reading achievement. For example, Sustained Silent Reading (SSR) or DEAR (Drop Everything and Read) are examples of silent reading programs that proliferate in many schools, and are thought to enhance reading comprehension. The two principals of the non-successful campuses had some form of these programs on their campuses. The research, however, demonstrated that these practices were not as effective as guided oral reading in helping children become fluent readers (Russo, 1995). Similar studies must be scrutinized to determine the reliability and validity of other specific reading strategies.

A relevant example of the importance of curricular knowledge can be seen in the state of Texas in the form of the Texas Reading Initiative, discussed in Chapter II. With the support of: (1) strong research-based reading academies; (2) fiscal support for campuses through such programs as the Optional Extended Year Program (minimum of \$5500 per district); (3) the Accelerated Reading Program (minimum of \$7500 per district); (4) diagnostic assessments; and (5) a clear legislative mandate, it was anticipated that student achievement in reading would increase. Preliminary reports from the Texas Education Agency Assessment and Accountability Division are, however, were not encouraging. The current third grade reading passing rates on TAAS in 1999 were 88%; in 2000: the students passing rates dropped to 87%; and in 2001 the passing rates were 86%.

These results make the implications of this research project extremely well-timed. Although many principals in the State of Texas received training through the Texas Reading Leaders Project, this was simply a one-day overview of early literacy. That is not adequate. We can no longer afford, nor do the students deserve instructional leaders who have participated in random acts of staff development. They deserve better, particularly at the leadership level. The principals who lead elementary campuses **must** be trained with their staff in the strategies instituted in the Reading Academies. This training is not optional. It **must** be mandated, and it **must** be mandated now. Implementation of the academies for teachers in kindergarten-second grade has been completed. The legislators have appropriated revenue for the expansion of these academies to third and fourth grade teachers. If systemic change in the culture of the

schools is to occur, the principal must be able to model the same effective strategies the teachers are learning. Viable, effective instructional leaders must not only support classroom teachers with fiscal resources, they must also support them with a clear vision and understanding of the critical reading proficiencies that form the foundation for literacy at each grade level. Participation in the Academies will provide administrators with the opportunity to learn with their staff.

George W. Bush (2000) in his acceptance speech to the Republican National Convention shared his view of the status of education in many schools today:

On education, too many American children are segregated  
Into schools without standards, shuffled from grade to grade  
because of their age regardless of their knowledge. This is  
discrimination, pure and simple, the soft bigotry of low  
expectations. And our Nation should treat it like other forms of  
discrimination. We should end it. (p.86).

One technique in the extremely critical process of providing an appropriate education for every student is to insure every principal has the pre-requisite skills to eliminate this “soft bigotry.”

A review of the role of the manner in which pre-service institutes impact the principals leadership practices is another dimension of leadership where further research would be beneficial. Preliminary evidence suggests that while institutes of higher education through graduate level courses do provide sound theoretical doctrine and

research relative to leadership, what it fails to offer participants is a program grounded in the day-to-day experiences of practicing principals (Richard, 2001).

An intriguing issue that emerged in the study is the question raised by Mr. Tucker of the National Center on Education and the Economy. He wants to know if the principal's job is "doable" (Olson, 2002).

Most principals are not paid commensurate with their responsibilities.

They're under intense pressure to produce. Yet they have very little influence over the standards or assessments on which their schools are judged, and often have even less control over such key issues as personnel and budgeting. Who needs that job? Mr. Tucker believes that the principal's job description is in transition. What we're talking about here is not training principals for the job that exists – because I do think it is an impossible job – but training people who can actually change the job (Olson, 2002, pp.7-8).

All of these issues are promising areas for future investigation. Informed, responsible research must continue for the sake of millions of children whose lives depend on the opportunity that a comprehensive literacy program will make possible.

#### Conclusions/Implications

The research included in Chapter II of the literature review clearly indicates that dramatic improvements in reading are achievable within the context of a fully implemented, comprehensive program that involves both systemic and school-wide commitment and coordination. The starting point of all comprehensive early literacy

prevention and intervention strategies is attitudinal and involves high expectations; a genuine belief in the capacity of all students to progress, given sufficient time and support; and a relentless determination to persist with those who are not experiencing success. An effective literacy program should include the creation of a detailed, systemic, and on-going profile of young children's literacy progress. This information is essential in guiding decision making with respect to identification of and intervention for all young learners as well as at-risk students (Adams, 1990; Taylor, Short, Frye, & Shearer, 1992). The importance of the role of the principal as the instructional leader was another component that impacts reading ability. Instructional leaders must do everything possible to ensure that all students have access to instruction in reading during those early years and this instruction must be sustained throughout the formal years of school (McPike, 1998; Grady, Wayson & Zirkel, 1989).

In seeking to develop reading links, it is necessary to recognize that the three major contexts in which children learn and grow are family, school and community, and these constituencies may be joined together or pulled apart. There are some practices that schools, families, and communities conduct separately and some they conduct jointly to influence students' successful learning and development (Epstein, 1995; Huberman & Miles, 1984).

All of these issues were embraced and supported by the research and by the principals who were interviewed for this study. Informed, responsible, investigations must continue for the sake of the millions of children whose lives depend on the opportunities which full literacy will make possible.

The results reported in this study were based upon the findings from a review of current literature relative to early literacy; the correlation between the level of an administrators knowledge of the components of an effective literacy program as measured by a questionnaire and student achievement as measured by the third grade TAAS reading tests; and purposive interviews, included to enhance the understanding of the specific behaviors demonstrated by that administrators who lead campuses where students are consistently successful or unsuccessful. The conclusions were offered with the caveat that, although the database included a relatively small sample size, the schools selected mirror demographically the average make-up of the majority of the public schools in Texas (AEIS, 2001). Therefore the potential for generalizing to a larger population does exist.

With this research in mind, the implications for me personally will be realized with my involvement in the Technology Applications Readiness Grant for Empowering Texas (TARGET) for the 2003-2004 school year. I will be working with the third grade teachers from six identified elementary schools that were selected from those who attended the Third Grade Reading Academies in 2002. These campuses are similar in size and demographics, and at least 70 % of their third grade students met the standard score of 53% on the first administration of the TAKS Test administered in March 2003. These teachers will be provided with specially developed research-based reading curriculum and training materials designed to enhance the reading achievement for their students, as well as the distance learning and other technological equipment for use in their classrooms. They will also receive intensive professional development relative to



this technology that can be successfully integrated into the reading curriculum based on the third grade reading TEKS. Three days of initial training will be provided as a review of the effective reading strategies provided in the Academies. Subsequent one hour follow-up training sessions on technology integration will be held twice weekly, after school, through distance learning on each campus beginning in October, 2003 and continuing through March, 2004. These sessions will provide the teachers and administrators with the opportunity to dialogue, express concerns and share successes. Each campus will also receive 15 on-site visits to provide continuous support for the selected teachers as they instruct in the classroom. The principals on each campus are required to attend the training sessions and be present during the follow-up sessions conducted through the distance learning. This participation will better equip them to evaluate and support the reading program strategies the teachers will be implementing on their campuses. They and the teachers will also be provided with collaborative planning time. Both groups will meet with me during the site visits to better enable me to modify and adjust the program as needed. On-going formative evaluations and the summative evaluation will be conducted by Midwestern State University Staff on a quarterly basis and shared with me, in order for timely, positive changes to be implemented relative the needs of the individual campuses. The formal summative evaluation including TAKS scores will be presented to these selected schools and the Texas Education Agency in June of 2004. Included in the report will be data relative to the effectiveness, replicability and appropriate scalability of the program. These results will then be analyzed and compared to other campuses in Region 9 with similar demographics to determine the

value of instituting similar models on other campuses with the original six campuses serving as mentors.

Dr. Lawrence Lezotte concludes his book, *Learning For All* (1997) with a quote from his dear friend and noted fellow research pioneer in the Effective Schools Movement, the late Dr. Ron Edmonds. Although Edmonds quote refers to schooling children in general, it can and does make a profound statement about reading instruction also. Dr. Edmonds states:

We can, whenever we choose, successfully teach all children whose schooling is of interest to us. We already know more than we need in order to do that. Whether we do it or not will finally come to depend on how we feel about the fact that we have not done it so far (p.67).

Lezotte believes the time has come to take what we know and make a renewed commitment to the American dream. “ It is time for **compulsory schooling** to become **compulsory learning** (Lezotte, 1997, p.67). We know what it takes to ensure students become proficient readers. It is time to turn that knowledge into action”

The perpetuation of the United States and its continued role as a leader in the twenty-first century, truly resides in the manner in which all stakeholders in the education community responds to this challenge. The conclusions are simple, but the implications for millions of children are enormous.

APPENDIX A

PRINCIPALS KNOWLEDGE OF LITERACY QUESTIONNAIRE

Please provide your school and district name. \_\_\_\_\_

Principals Knowledge of Literacy Questionnaire

Please respond to each item on this questionnaire by writing the response that best reflects your behavior as principal during the last year.

Read each statement carefully and write the number that indicates the extent to which you agree with the statement. If you cannot answer the question, please write a “?”.

The results of this survey will NOT be reported by individual school. This survey takes about 20 minutes to complete.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Do not know
1	2	3	4	5	?

**VISION**

- \_\_\_\_\_ 1. I am able to allocate my time in ways that communicate the importance of reading.
- \_\_\_\_\_ 2. I am highly visible throughout the school.
- \_\_\_\_\_ 3. I ensure that all staff (including instructional assistants) are working toward the same objectives.
- \_\_\_\_\_ 4. Teachers understand the connections between classroom innovations and school goals.
- \_\_\_\_\_ 5. I can say no to initiatives or programs that are in conflict with school goals.

**READING INSTRUCTION**

- \_\_\_\_\_ 6. I can talk confidently with teachers about effective reading instruction at my school.
- \_\_\_\_\_ 7. I can explain to teachers the core elements of effective reading instruction.
- \_\_\_\_\_ 8. I know the priority reading skills students should learn in each grade level.
- \_\_\_\_\_ 9. Most students will not need instruction in phonemic awareness after the first grade.
- \_\_\_\_\_ 10. Oral reading fluency is a key component of kindergarten instruction.
- \_\_\_\_\_ 11. A student may read the words accurately and still not understand what was read.

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Agree nor Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Do not know</b>
1	2	3	4	5	?

**PROGRESS MONITORING**

- \_\_\_\_\_ 12. I attend teacher professional development (PD) sessions about reading instruction with my faculty.
- \_\_\_\_\_ 13. Teachers have access to an ample supply of materials and books to teach reading.
- \_\_\_\_\_ 14. The teachers at this school follow a schoolwide discipline plan.
- \_\_\_\_\_ 15. Teachers handle most discipline issues with little administrative involvement.
- \_\_\_\_\_ 16. Our school has one core program for reading instruction that teachers supplement with other reading materials or books.
- \_\_\_\_\_ 17. Curricular materials for special populations of students (such as bilingual students or special education students) are consistent with materials in the regular program.
- \_\_\_\_\_ 18. During the last year, I monitored kindergarten teachers' instruction related to the Kindergarten Teacher Reading Academy (held in summer 1999).
- \_\_\_\_\_ 19. I ensure that PD is directly related to my school's reading goals.
- \_\_\_\_\_ 20. My school has an established system for disseminating information teachers learn while at PD sessions.
- \_\_\_\_\_ 21. I accept that teaching practice will usually not be affected by PD.
- \_\_\_\_\_ 22. I conduct informal observations in classrooms on a regular basis. (Informal observations are unscheduled, last at least five minutes, and may or may not involve written feedback or a formal conference).
- \_\_\_\_\_ 23. The Texas Essential Knowledge and Skills guide curricular decisions.
- \_\_\_\_\_ 24. The reading instructional program on my campus has been reviewed to see how well it reflects the Texas Essential Knowledge and Skills.
- \_\_\_\_\_ 25. The implementation of the Texas Essential Knowledge and Skills in reading and language arts is monitored in all grades (e.g., timelines, lesson plans).
- \_\_\_\_\_ 26. I could identify the best reading teachers by examining classroom instruction.

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Agree nor Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Do not know</b>
1	2	3	4	5	?

- \_\_\_\_\_ 27. I could identify the best reading teachers by analyzing assessment results.
- \_\_\_\_\_ 28. Teachers seek help or try alternative strategies if a student(s) is having difficulties learning to read.
- \_\_\_\_\_ 29. I have a system for getting feedback from others who assist in observing instruction (e.g., assistant principal, curriculum director).

#### **INSTRUCTIONAL GROUPING**

- \_\_\_\_\_ 30. Teachers move students in and out of ability groups for reading instruction.
- \_\_\_\_\_ 31. A needs assessment has been done to determine the resources (such as personnel, leveled books, time, space) teachers need to work with groups effectively.

#### **USING ACHIEVEMENT DATA**

- \_\_\_\_\_ 32. I review and interpret standardized test scores with faculty.
- \_\_\_\_\_ 33. Test results are used to establish school goals.
- \_\_\_\_\_ 34. I make decisions about resource allocations based on academic achievement in the previous year.
- \_\_\_\_\_ 35. The teachers have learned how to use data (such as reading diagnostic inventories or TPRJ) to guide decisions about teaching and selecting curriculum.
- \_\_\_\_\_ 36. My school has specific instructional goals.

#### **INTERVENTIONS FOR STRUGGLING READERS**

- \_\_\_\_\_ 37. I (or other instructional leaders) generally know which students are reading below grade level.
- \_\_\_\_\_ 38. I encourage teachers to have a plan for helping struggling readers improve.
- \_\_\_\_\_ 39. My school has a special program(s) or materials to help struggling readers become better readers.
- \_\_\_\_\_ 40. There are classroom teachers in this school who do not know how to help struggling readers.

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Agree nor Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Do not know</b>
1	2	3	4	5	?

- \_\_\_\_\_ 41. I have made explicit efforts to find instructional programs, strategies, and materials that will help struggling readers.
- \_\_\_\_\_ 42. I am confident in my ability to select materials and allocate resources that are targeted at helping struggling readers.
- \_\_\_\_\_ 43. Teachers have the knowledge and tools to design effective intervention plans for struggling readers.
- \_\_\_\_\_ 44. This school expects struggling readers to meet or exceed specific goals (such as move forward one grade level) while participating in a particular intervention.
- \_\_\_\_\_ 45. Struggling readers spend additional time during the day with reading instruction.

#### **SUSTAINING EFFECTIVE PRACTICES**

- \_\_\_\_\_ 46. In my school, teachers work together to coordinate the instructional program within and between grades.
- \_\_\_\_\_ 47. In my school, the overlap between the school's curricular objectives and TAAS test are assessed.
- \_\_\_\_\_ 48. Teachers are involved in the review and selection of reading instructional programs and materials.
- \_\_\_\_\_ 49. Teachers know they have my support when placement decisions require student or class schedule changes.
- \_\_\_\_\_ 50. I require teachers to reconsider their teaching practices in light of current reading research.
- \_\_\_\_\_ 51. I believe that teaching students to read is ample preparation for students to take standardized reading assessments.
- \_\_\_\_\_ 52. In my school, teachers have opportunities (such as planning time or team meetings) to talk with each other if they need help with reading instruction.
- \_\_\_\_\_ 53. In general, most of my time during the school day is spent on management activities (such as budget or maintenance).

Please use the following scale to answer the remaining items. For each item, a five represents "almost always," a four represents "frequently," a 3 represents "sometimes," a 2 represents "seldom," and 1 represents "almost never." If you cannot answer an item, please write a "?" in the blank.

Almost Never	Seldom	Sometimes	Frequently	Almost Always	Do not know
1	2	3	4	5	?

#### VISION

\_\_\_\_\_ 54. My actions reflect a sense of urgency or importance about reading instruction.

#### PROGRESS MONITORING

\_\_\_\_\_ 55. Teachers use worksheets and practice tests to prepare for statewide assessments.

\_\_\_\_\_ 56. I actively participate in the review and selection of curricular materials.

\_\_\_\_\_ 57. When teachers approach me with requests for additional reading materials, I am able to fulfill their requests.

\_\_\_\_\_ 58. Teachers who are less proficient in teaching reading receive *direct* and *ongoing* help from the principal or other teachers.

\_\_\_\_\_ 59. I visit classrooms to see that instructional time is used for learning and practicing new reading skills and concepts.

\_\_\_\_\_ 60. Reading instruction time is interrupted (e.g., phone calls, announcements, visitors, assemblies).

\_\_\_\_\_ 61. While observing instruction, I make a point to look for specific practices I know teachers learned about in PD.

\_\_\_\_\_ 62. I meet with teachers to discuss student reading progress.

\_\_\_\_\_ 63. I ask teachers what they are doing to help students who are having difficulties with reading.



<b>Almost Never</b>	<b>Seldom</b>	<b>Sometimes</b>	<b>Frequently</b>	<b>Almost Always</b>	<b>Do not know</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>?</b>

#### **INSTRUCTIONAL GROUPING**

- \_\_\_\_\_ 64. Students are grouped homogeneously by ability during their reading instruction time.
- \_\_\_\_\_ 65. Students are placed heterogeneously by ability within the classroom for reading instruction.
- \_\_\_\_\_ 66. Student performance results (such as test scores, diagnostic instruments, running records) are used to make placement decisions.
- \_\_\_\_\_ 67. Teachers use whole class grouping for reading instruction.
- \_\_\_\_\_ 68. Teachers use various grouping patterns (such as small groups, pairs, or individuals) for reading instruction.

#### **USING ACHIEVEMENT DATA**

- \_\_\_\_\_ 69. I discuss the item analyses of standardized tests with faculty to identify strengths and weaknesses in the reading instruction program.
- \_\_\_\_\_ 70. The faculty and I use data on student reading performance when developing the school's reading goals.
- \_\_\_\_\_ 71. Results from schoolwide testing (such as TAAS) guide curricular decisions.

#### **INTERVENTIONS FOR STRUGGLING READERS**

- \_\_\_\_\_ 72. Teachers use early diagnostic instruments to identify students needing additional or special reading instruction.
- \_\_\_\_\_ 73. Teachers rely on extrinsic motivation (such as prizes) to encourage students to read.
- \_\_\_\_\_ 74. Teachers translate school reading goals into classroom objectives.



APPENDIX B  
PRINCIPAL INTERVIEW PROTOCOLS

## PRINCIPAL INTERVIEW PROTOCOLS

1. What are your goals for your school this year?
2. What do you consider the most important change(s) that have occurred on your campus during your tenure that have positively impacted student reading achievement?
3. In order to ensure all students have access to challenging curricula, what has the campus done in the last two to three years in the area of curriculum and instruction?
4. Are there any content or skills being taught in grades kindergarten through third grade that were not being taught before?
5. How were decisions made with respect to the reading materials and instructional strategies that would be used on your campus? How were teachers involved in the process?
6. How were decisions made with regard to budgetary resources for reading?
7. Please share the amount of time spent on reading instruction on a daily basis in kindergarten through third grades?
8. ? What happens to students who are in danger of failing to meet the States' standards for reading achievement?
9. Approximately how much time are you able to spend in the classroom or on other instructional tasks per week?

## REFERENCES

- Adams, M.J. (1994). *Beginning to read: Thinking and learning about print*. MIT Press: Cambridge, MA.
- Alkin, M. (1992). Teaching effectiveness. *Encyclopedia of Educational Research, Volume IV*, Macmillan Publishing: New York, NY.
- Allington, R. & Walmsley, S. (1995). *No quick fix: Rethinking literacy programs in America's elementary schools*. Newark, DE.
- Anderson, R.C., & Nagy, W. (1991). *Word meanings*. The Handbook of Educational Research, Volume II.
- Anglin, J. (1993). Vocabulary development: a morphological analysis. *Monographs of the Society of Researching Child Development, Serial No. 238. 58, No. 10*.
- Association for Effective Schools Research, Inc. (1996).
- Baker, S. Simmons, D. & Kame'enui, E. (1998). *What reading research tells us about children with diverse learning needs: Bases and basics*. Lawrence Erlbaum Publishers. Newark, NJ.
- Beck, I. & McKeown, M. (1991). *Conditions of vocabulary acquisition. Handbook of Reading Research Volume II*.
- Begley, S. (February 19, 1996). Your child's brain. *Newsweek*, 76, 28-31.
- Best, D. & Roberts, D. (1975). Algorithm AS89: The upper tail probabilities of Spearman's rho. *Applied Statistics*, 377-379.

- Bolman, L. & Deal, T. (September 1997). Leadership and organizational vitality. *U.S. Department of Education Blue ribbon Schools Program. 1-5.*
- Bracey, G. (1997). *The truth about America's schools: The Bracey report.* Bloomington, IN.
- Brett, A., Rothlein, L., & Hurley, M. (1996). Vocabulary acquisition from listening to stories and explanation of target words. *The Elementary School Journal, 96, 4.*
- Brookover, W., Lezotte, L., & Edmonds, R. (1982). *Creating effective schools.* Learning Publications: Inc. Holmes beach, FL.
- Brophy, J., & Good, T. (1986). *Teacher Behavior and Student Achievement. Handbook of Research on Teaching.* Macmillan Publishers: New York, NY.
- Burns, M., Griffin, P., Snow, C. (1999). *Starting out right: A guide to promoting children's reading success.* National Academy Press, Washington, D.C.
- Campion, M., Campion, J., & Hudson, J. (1994). Structured interviewing: a note on incremental validity and alternative question types. *Journal of Applied Psychology, 7, 89-95.*
- Carlisle, J. (1995). *Morphological awareness and early reading achievement: Morphological aspects of language processing.* Erlbaum Publishers: Hillsdale, NJ.
- Carver, R. (1994). Percentage of unknown vocabulary words in text as a function of the relative difficulty of the text: Implications for instruction. *Journal of Reading Behavior, 48, 67-70.*

- Chall, J., Jacobs, V., Baldwin, L. (1990). *The reading crisis: Why poor children fall behind*. Harvard University Press, Cambridge, MA.
- Chance, E. (1992). *Creating the effective school district: a case study. A paper presented to the national council of professors of educational administration*. Terre Haute, IN.
- Coady, J., & Huckin, T. (1997). *Second language vocabulary acquisition*. Cambridge University Press, Cambridge, MA.
- Crevola, C., & Hill, P. (1998). *Evaluation of a whole school approach to prevention in early literacy*. Center of Applied Research: Victoria, Australia.
- Cunningham, A. & Stanovich, K. (1997). Early reading acquisition and its' relation to reading experiences and ability ten years later. *Developmental Psychology*, 33,6.
- Depre, H. & Iverson, S. (1994). *Early literacy in the classroom: A new standard for young readers*. MacMillan: Melbourne, Australia.
- Ediger, M. (August 19,1999). *The principal and reading curriculum*. National Academy Press: Washington, D.C.
- Elley, W. (1989). Vocabulary Acquisition from listening to stories. *Reading Research Quarterly*, 24, 174-187.
- Epstein, J.L. (1995). School, family, community partnerships: Caring for the children we share. *Phi Delta Kappan*, 76, 701-712.
- Feitelson, D., Goldstein, Z., & Share, D. (1993). Effects of listening to story reading on aspects of literacy acquisition in a diagnostic situation. *Reading Research Quarterly*, 28(1), 70-79.

- Fletcher, J., & Lyon, R. (1998). *Reading: A research-based approach*.  
Hoover Institute, Palo Alto, CA.
- Folger, J., & Breda, C. (1990). Do teacher aides improve student performance: Lessons from Project Star. *Paper presented at the annual convention of the American Educational Research Association. Brooklyn, MA.*
- Foorman, B., Frances, J., Schatschneider, C., & Mehta, P. (1998). The role of instruction in learning to read: Preventing failure in at-risk children. *Journal of Educational Psychology, 90, 1-15.*
- Foriska, T. (1994). The principal as instructional leader: Teaming with teachers for student success. *Schools in the Middle 3(3), 31-34.*
- Fullan, M. (1997). *What's worth fighting for in the principalship?* Second Edition  
Teachers College Press: New York, NY.
- Gall, M. & Borg, W. (1996). *Educational research: an introduction*. Longman  
Publishers: White Plains, NY.
- General Accounting Office. (1991). Using structured interview techniques. *Washington DC: Program Evaluation and Methodology Division Report. 10. 1-5.*
- Gettys, C. (1994). Compacted approach to reading: An intervention approach for at-risk beginning readers. *University Press, Cambridge, MA.*
- Glickman, C., & Ross-Gordon, J. (1999). Supervision of instruction. *Journal of the Texas State Reading Association, Austin, TX.*
- Gordon, D. (2002). Moving instruction to center stage. *Harvard Education Letter, 18, (5).*



- Gough, P., Hillinger, M. (1980). Learning to read: An unnatural act. *Bulletin of the Orton Society*, 30, 171-176.
- Grady, M.L., Wayson, W., & Zirkel, P. (1989). A review of the effective school research as it relates to principals. *UCEA Monogram Series*. 5-33.
- Graves, M., Juel, C., & Graves, B. (1998). *Teaching reading in the 21<sup>st</sup> century*. Allyn & Bacon: Boston, MA.
- Guthrie, J., Schafer, W., Wang, Y., & Afferbach, P. (1995). Relationships of instruction to amount of reading: An exploration of social cognitive, and instructional connections. *Reading Research Quarterly*, 30(1), 8-25.
- Hallinger P., Bickman L., & Davis, K. (1996). School context, principal leadership, and student reading achievement. *The Elementary School Journal*, Vol.96 (5).
- Hart, B., & Risely, T. (1996). *Meaningful differences in the every day lives of young American children*. Brookes Publishing Co: Baltimore, MA.
- Hoerr, T. (1996). Collegiality: A new way to define instructional leadership. *Phi Delta Kappan*, 77, 56-66.
- Hoyle, J., & English, F. (1996). *Skills for successful 21<sup>st</sup> century school leaders*. American Association of School Administrators, Arlington, VA.
- Huberman, A., & Miles, M., (1984). *Innovation up close: How school improvement works*. Plenum Press: New York, NY.
- International Reading Association. (1998). Report: honoring children's right to excellent reading instruction.

- Isaac, S., & Michael, W. (1995). *Handbook in research and evaluation*. Educational and Industrial Testing Services: San Diego, CA.
- Jackson, N., Roller, C. (1993). *Reading with young children: Research based decision making series, NO. 9302*. The University of Connecticut, Storrs, CT.
- Jensen, E. (1998). *Teaching with the brain in mind*. ASCD: Alexandria, VA.
- Juel, C. (1991). Beginning reading. In Barr, R., Kamil, M., Mosenthal, P., & Pearson, P. (Eds), *Handbook of Reading research*, 2, 759-787.
- Kagan, J.M. (1994). *Galens Prophecy*. New York, NY.
- Kaiser, J., (1995). *The 21<sup>st</sup> century principal*. Stylex Publishing Company: Mequon, WI.
- Kame'enui, E. (1994). Diverse learners and the tyranny of time: Don't fix blame, fix the leaky roof. *The Reading Teacher*, 46(5).
- Kame'enui, E. (1996). Shakespeare and beginning reading: the readiness is all. *Teaching Exceptional Children*, 28, 77-81.
- Keller, B. (November 11, 1998). Principal Matters. *Education Week*, 34,36-39.
- Kennedy, N. (1997). The connection between research and practice. *Educational Researcher*, 26, 4-12.
- Kotulak, R. (April 13,1993). Research discovers secrets of how the brain learns to talk. *Chicago Tribune, Section 1*.
- Laufer, B. (1997). *The lexical plight in second language reading: second language vocabulary acquisition*. Cambridge University Press: Cambridge, MA.
- Learning First Alliance. (1998). *Every child reading: an active plan for the learning first alliance*. American Educator Publications, New York, NY.

- Leedy, P. (1997). *Practical research: planning by design*. Prentice Hall: Upper Saddle River, NJ.
- Lezotte, L. (1997). *Learning for all*. Effective Schools Products, Ltd: Okemos, MI.
- Louis, K., Kruse, S., & Raywid, M. (1996). Putting teachers at the center of reform. *NAASP Bulletin*, 80 (580), 9-12.
- Lyon, R. (1997). Statement before the committee on Education and the National Workforce: *U.S. House of Representative, Washington D.C.*
- Lyon, R. (1998). National Institute of Health and Human Development. Summary of findings from the NICHD research programs. *Presentation for ASCD Reading Initiative; Austin TX.*
- Lyon, R., Moats, L. (1997). Critical conceptual and methodological considerations in reading intervention research. *Journal of Learning Disabilities*, 30, 578-588.
- McGraw, T., Long, R., Morgan, P., & Rosier, D. (1998). Literacy and numeracy in Australian schools. *CACER Research Monograph*, 43. Hawthorne, Australia.
- McIntyre, E. (1992). Young children's reading behaviors in various classrooms contexts. *Journal of Reading Behavior*, 24, 339-71.
- McKeown, M. G., I.L., Omanson, R. C., & Pople, M.T. (1985). Some effects of the nature and frequency of vocabulary instruction on the knowledge and use of words. *Reading Research Quarterly*, 20, 522-535.
- McMillan, J. (1996). *Educational Research: fundamentals for the consumer*. Harper Collins: New York, NY.

- McPike, E. (1998). The unique power of reading and how to unleash it. *American Educator*, 22, Nos. 1&2, 12-17.
- Meyers, L., Wardop, J., Hastings, C., & Linn, R. (1993). Get the name. *Journal of Educational Research*, 86, No. 3, 56-72.
- Moats, L. (1997). What research says about effective comprehensive reading programs. *Meeting conducted at the ASCD Reading Series Workshop: Austin, TX.*
- Moats, L. (1999). Teaching reading is rocket science: what experts should know and be able to do. *American Federation of Teachers. Washington, DC.*
- Murphy, J. & Pimentel, S. (September, 1996). Grading principals: administrators evaluations come of age. *Phi Delta Kappan*, 78, n1. 74-92.
- Nagy, W., Anderson, R., & Herman, P. (1987). Learning word meanings from context during normal reading. *American Research Journal*, 24, 237-270. Nagy, W., McClure, E., & Mir, M. (1997). Linguistic transfer and the use of context by Spanish-English bilinguals. *Applied Psycho Linguistics*, 18, 433-454.
- National Association for the Education of Young Children. (1996). Position statement: *Responding to linguistic and cultural diversity: Recommendations for effective early childhood education*, 51(2).
- National Assessment of Educational Progress. (1994). A first look-findings from NAEP. *U.S. Government Printing Office: Washington, D.C.*
- National Commission on Teaching and America's Future. (1996). A report: What matters most: Teaching for America's future. *Woodbridge, VA.*

- Niece, R. (1993). The principal as instructional leader: past influences and current resources. *NAASP Bulletin*. 77(553). 12-18.
- Olson, L. (2000). New thinking on what makes a leader. *Education Week*.19, 1-8.
- Olson, L. (2000). Principals try new styles as instructional leaders. *Education Week*, 20. 7-16.
- Orstein, A. (December, 1993). Leaders and losers: how principals succeed. *Education Digest*, 59, n4, 1-27.
- Pikulski, J. (1994). Preventing reading failure: A review of effective programs. *The Reading Teacher*, 48. 30-39.
- Puma, M., Karweit, N., Price, C., Ricciuti, A., Thompson, W., & Vaden-Kiernan, M., (1997). *Prospectus: final report on student outcomes*. Washington, D.C.
- Purcell-Gates, V., & Dahl, K., (1991). Low SES children's success & failure at early literacy learning in skills based classrooms. *Journal of Reading Behavior*, 23, No. 1. *A review of school effectiveness research*. London: Office for Standards in Education.
- Richard, A., (2001). Growth of academies highlights: new thinking about leadership. *Education Week*, 20, 1-7.
- Russo, M., (1995). *A compact for reading guide: A reading partnership action kit*. Vol. II. *The Compact for Learning Series*. A joint project of the USDE, the Corporation for National Service, the Los Angeles Reading by Nine and the Little Planet Learning.
- Ryan, B., & Joiner, B. (2001). *Minitab Handbook*. Duxbury Press: Pacific Grove, CA.

- Schmoker, M., (2001). The crayola curriculum. *Education Week*, 202, 42-44.
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*.  
Doubleday: New York, NY.
- Slavin, R.E., Karwirth, N.L., & Wasik, B.A. (1993). *Preventing Early School Failure: Research Effective Strategies*. Allyn & Bacon: Boston, MA.
- Snow, E., Burns, S., Griffin, P. (1998). *Preventing Reading Difficulties in Young Children*. National Academy Press: Washington, D.C.
- Sparks, D., & Hirsh, S. (1997). *A new vision for staff development*. Association for Supervision and Curriculum Development: Alexandria, VA.
- Stahl, S. (1986). Three principles of effective vocabulary instruction. *Journal of Reading*, 29(6), 662-668.
- Stanovich, K.E. (1986). Romance and reality. *The Reading Teacher*, 47, 116-129.
- Taylor, B., Short, R., Frye, B., & Shearer, B. (1992). Classroom teachers prevent reading failures among low achieving first grade students. *The Reading Teacher*, 45, 592-97.
- Texas Center for Reading and language Arts. (Summer, 2000). *Building a campus of readers*. University of Texas Press: Austin, TX.
- Texas Education Agency. (1996). *Texas Reading Instruction, Components and Features of a Research-Based Reading Program: Texas Reading Initiative*. Austin, TX.
- Texas Education Agency. (2000). *Academic Excellence Indicator System*. Austin, TX.
- Texas Education Agency. (2000). *Title I Program Guide*. Austin, TX.

- Tierney, R., Pearson, P. (1983). Toward composing a model of reading. *Language Art*, 60, 568-580.
- Walker-Dalhouse, D. (1993). Beginning reading and the African American child at-risk. *Young Children*, 49, 24-28.
- Wasik, B., & Slavin, R. (1990). Preventing early reading failure with one to one tutoring: A best evidence synthesis. *Paper presented at the annual convention of the American Research Association, Boston, MA.*
- White, T., Graves, M., & Slater, W. (1990). Growth of reading vocabulary in diverse elementary schools; Decoding and word meaning. *Journal of Educational Psychology*, 82, 281-290.
- Wong, K. & Meyer, S., (2000). Spotlight on student success: the effectiveness of Title I schoolwide projects: a synthesis of findings for the first years of evaluation. *Temple University Center. Philadelphia, CA.*
- Zemelman. S., Daniels, H., & Hyde, A. (1998). *Best practices: New standards for teaching and learning in America's schools*. Heineman: Portsmouth, NH.