


1-1-2009

# Nonquantifiable instructional factors that contribute to achievement in reading for students in grades 3-4 in a midwestern urban school district

Alice Marie Figgs  
*Walden University*

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>

 Part of the [Elementary and Middle and Secondary Education Administration Commons](#), [Elementary Education and Teaching Commons](#), [Other Education Commons](#), and the [Reading and Language Commons](#)

---

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact [ScholarWorks@waldenu.edu](mailto:ScholarWorks@waldenu.edu).

# Walden University

COLLEGE OF EDUCATION

This is to certify that the dissertation by

Alice Figgs

has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

## Review Committee

Dr. Deanna Boddie, Committee Chairperson, Education Faculty

Dr. Laura Lynn, Committee Member, Education Faculty

Dr. Anthony Chan, Committee Member, Education Faculty

Chief Academic Officer

Denise DeZolt, Ph.D.

Walden University  
2009

ABSTRACT

Nonquantifiable Instructional Factors That Contribute to Achievement in Reading for  
Students in Grades 3-4 in a Midwestern Urban School District

by

Alice Marie Figgs

M.Ed., National Louis University, 1997  
B.S., Jackson State University, 1976

Dissertation Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Philosophy  
Education

Walden University  
November 2009

## ABSTRACT

Currently some elementary students in large urban school districts are not able to perform well in school because they do not have strong reading skills. The recent No Child Left Behind (NCLB) federal legislation has supported the use of research-based instructional materials and strategies in reading to remedy this problem; however, qualitative studies exploring the specific nonquantifiable instructional factors that contribute to reading achievement in large urban school districts are still limited. The purpose of this multiple empirical case study was to explore the instructional factors that contributed to achievement in reading for students in Grades 3 and 4 at 2 urban midwestern elementary schools. The conceptual framework for this study was based on the philosophy of constructivism, which provided an understanding about how students learn to read in terms of creating meaning and constructing knowledge. The methodology of this qualitative multiple case study involved collection and analysis of data from multiple sources of evidence, including interviews, observations, and documents. The first level of data analysis used the specific analytic technique of category construction recommended by Merriam; the second level of data analysis used the general analytic technique of theory development as suggested by Yin and Merriam and, using that technique, a theoretical proposition was confirmed. Findings of this study indicated that direct and explicit instruction, including the consistent use of early literacy indicators and specific instructional strategies in reading, was the most significant factor in contributing to reading achievement for students. Implications for positive social change in education include improvement in reading instruction and assessment as well as improved district policies related to the development of high quality instructional reading programs.



Nonquantifiable Instructional Factors That Contribute to Achievement in Reading for  
Students in Grades 3-4 in a Midwestern Urban School District

by

Alice Marie Figgs

M.Ed., National Louis University, 1997  
B.S., Jackson State University, 1976

Dissertation Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Philosophy  
Education

Walden University  
November 2009

UMI Number: 3380371

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI 3380371

Copyright 2009 by ProQuest LLC.

All rights reserved. This edition of the work is protected against unauthorized copying under Title 17, United States Code.



ProQuest LLC  
789 East Eisenhower Parkway  
P.O. Box 1346  
Ann Arbor, MI 48106-1346

## DEDICATION

To my wonderful children, LaVill (Shanna) and JaMarlon (Kate), and to my husband, thank you for encouraging me. I would also like to thank my wonderful mother, Ocie Bell Riley-Davis; my six sisters and ten brothers; my grandsons, Cameron and Jalen; and my niece, Miron D. Davis-Thompson. I was able to continue this study in spite of enduring the tremendous losses of my father; my dear sister, Mattie Davis-Jackson; and my brothers, Dan and Charles. The Lord has guided me in my drive to achieve this doctoral degree. Through my academic struggles, I have managed to keep my faith in the value of assisting others and working with the students in today's world.

A special thank you goes to my two children, LaVill and JaMarlon, who demonstrated patience and encouragement when I was away from home studying or when I had a "dissertation weekend." Many family moments were missed. I could not have completed my dissertation without your support and belief in me. Your love and pride is what kept the momentum going.

Finally, this dissertation is dedicated to my parents, who instilled in me the confidence and will to realize my dreams. Dad, I wish you were here to share in my accomplishment.



## ACKNOWLEDGMENTS

Earning the PhD has been one of my lifelong dreams. Although it may have been delayed, it is nonetheless still just as sweet at this stage of my personal and academic career. I fully realize I could not have done this without divine intervention, for it is through Him that all things are done.

I am fortunate to have had the support, guidance, and expertise of many individuals who helped me through this program.

My sincere gratitude to Dr. Deanna Boddie, my faculty mentor and committee chair, for the guidance, support, and encouragement that she provided to me during the years of the doctoral program. Additionally, I would like to thank Dr. Laura Lynn and Dr. Anthony Chan, my dissertation committee members, for the invaluable advice given to me during this process. I hope to share the leadership skills and expertise that you have provided to me.

Appreciation and thanks go to the many people who have surrounded me with encouragement and support. Completing 4 years of study and a dissertation is truly a long and rewarding journey that could not have been accomplished without the many friends who supported me throughout this process.

## TABLE OF CONTENTS

LIST OF TABLES .....	vi
LIST OF FIGURES .....	vii
CHAPTER 1: INTRODUCTION TO THE STUDY .....	1
Background to the Study.....	1
Statement of the Problem .....	7
Purpose of the Study.....	8
Research Questions .....	9
Conceptual Framework for the Study.....	10
Nature of the Study .....	15
Definition of Terms .....	18
Assumptions .....	21
Scope, Delimitations, and Limitations .....	22
Significance of the Study .....	23
Implications for Social Change .....	24
Organization of the Remainder of the Study .....	25
CHAPTER 2: REVIEW OF THE LITERATURE .....	27
Introduction .....	27
Conceptual Framework .....	28
Reading Legislation .....	38
Reading Fluency and Comprehension .....	49
Vocabulary Knowledge .....	63
Understanding the Process of Reading .....	65
Socioeconomic Status and Reading Achievement .....	72
Reading Assessment .....	77
High Stakes Testing .....	77
Curriculum-Based Measurement .....	79
ISAT and IMAGE .....	93
Teacher Perceptions About How to Improve Reading Comprehension .....	99
Literature Related to the Use of Differing Methodologies.....	101
Summary.....	108
CHAPTER 3: METHODOLOGY .....	112
Introduction .....	112
Research Paradigm and Design .....	113
Research Questions .....	117
Setting .....	117
Participants .....	119
Researcher's Role .....	122
Data Collection Instruments .....	123
Data Collection Plan .....	124

Interview Protocol .....	127
Observation Protocol .....	127
Document Protocol .....	127
Data Analysis Plan .....	127
Threats to Data Quality .....	129
Feasibility of the Study .....	131
Ethical Issues .....	132
Summary .....	133
CHAPTER 4: RESULTS AND FINDINGS .....	135
Introduction .....	135
Purpose of Study .....	135
Data Organization .....	136
Data Collection Protocols .....	136
Interviews .....	136
Observations .....	137
Documents .....	139
Level 1 Data Analysis: Category Construction .....	140
Case 1: Instructional Reading Program for School A .....	140
Analysis of Interview Responses .....	140
Analysis of Observation Data .....	143
Physical Environment or Classroom Setting .....	144
Diversity of the Classroom .....	145
Gender of the Classroom .....	146
Content of the Reading Lesson .....	146
Instructional Strategies Used During the Lesson .....	148
Verbal Student Responses during the Lesson .....	150
NonVerbal Responses during the Lesson .....	151
Analysis of Documents .....	153
Lesson Plans .....	153
Staff Development Documents .....	157
Student Assessment Documents .....	160
State Assessments .....	160
Classroom Assessments .....	161
Level 2 Data Analysis: Category Construction .....	165
Case 2: Instructional Reading Program for School B .....	165
Analysis of Interview Responses .....	165
Analysis of Observation Data .....	169
Physical Environment or Classroom Setting .....	169
Diversity of the Classroom .....	171
Gender Makeup of the Classroom .....	173
Content of the Reading Lesson .....	174
Instructional Strategies Used During the Lesson .....	174
Verbal Student Responses during the Lesson .....	177

NonVerbal Responses during the Lesson .....	177
Analysis of Documents .....	179
Lesson Plans .....	179
Staff Development Documents .....	183
Student Assessment Documents .....	185
State Assessments .....	185
Classroom Assessments .....	187
Level 2 Cross-Case Analysis: Theory Development .....	190
Analysis of Research Findings .....	191
Confirmation of a Theoretical Proposition .....	197
Nonconforming/Discrepant Data .....	199
Evidence of Data Quality .....	203
Summary .....	204
CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	
Summary of Research Findings .....	206
Interpretation of Research Findings .....	207
Recommendations for Action .....	222
Recommendation for Future Research .....	225
Implications for Social Change.....	228
Reflections of the Researcher.....	232
Conclusion .....	235
REFERENCES .....	237
APPENDIX A: INTERVIEW CONSENT FORM .....	258
APPENDIX B: INTERVIEW QUESTIONS .....	260
APPENDIX C: PERMISSION LETTERS FROM PRINCIPALS .....	262
APPENDIX D: OBSERVATION CONSENT FORM .....	264
APPENDIX E: OBSERVATION DATA COLLECTION FORM .....	266
CURRICULUM VITAE .....	270

LIST OF TABLES

Table 1. Racial/Ethnic Background of District and School Sites .....118  
Table 2. Diversity of the Classroom School A .....145  
Table 3. Gender Makeup of the Classroom School A .....146  
Table 4. Diversity of the Classroom School B .....171  
Table 5. Gender of the Classroom School B .....172

LIST OF FIGURES

Figure 1. School A Classroom Results for ISAT/IMAGE .....160  
Figure 2. School B Classroom Results for ISAT/IMAGE .....185

## CHAPTER 1: INTRODUCTION TO THE STUDY

### Background to the Study

The No Child Left Behind (NCLB) Act of 2001 (P.L. 107-110) is federal legislation that created extensive changes for public education. In brief, this law places upon the states' educational systems a high level of accountability for educating every school age child, regardless of economic status, language, race, ethnicity, geography, or ability, to proficient levels by the year 2014 (United States Department of Education, 2001). While the law addresses all students in elementary through secondary schools, one component of the law aimed at the education of primary students is entitled Reading First.

Reading First is a federally funded program for all public schools with a goal that all students are able to read at grade level by the end of third grade. This program was designed to increase literacy achievement by helping states, schools, and districts address the reading levels of its students. Reading First is a formula grant program based on the number of children from families who are identified as living below the poverty line. The allocated federal funds must be used to guarantee that K-3 instructors have the essential skills to teach research-based instructional programs designated by the federal government and state departments of education and that these teachers are able to use diagnostic, screening, and classroom-based instruments to measure and monitor student progress (Put Reading First, 2001). The Reading First component of NCLB (2001) has given districts and states the opportunity to implement assessments, instructional

programs, intervention strategies, materials, and professional development that are research based.

Thus, NCLB (2001) is an attempt to improve student achievement in reading in the public schools. The National Reading Panel (NRP) progress report (2000) included several national longitudinal studies that indicated many school age children in the crucial first 3 years of their education are faced with serious reading problems. More than 17.5% of the nation's children, or about 10 million students, struggle with reading. According to Shaywitz (1993) and Francis (1996), 75% of the third grade students identified with reading problems still remain disabled readers in the ninth grade. In a supporting study done by Juel (1988), 88% of the students were likely to be poor readers in fourth grade because they were poor readers in first grade. According to the NRP progress report, a longitudinal study conducted by Felton and Pepper (1995) indicated that students with inadequate word identification skills in the third grade will fail to improve these skills by the end of eighth grade. Felton and Pepper also revealed that 25% of the students in the bottom of the reading continuum do not progress as fast as their peers who have learned to read successfully.

The National Assessment of Educational Progress (NAEP, 1998) stated that highly skilled readers remain a small number in American society today. Reading problems are especially harsh for disadvantaged students; for example, half of Grade 4 students whose parents graduated from college were skilled readers compared to 10% of Grade 4 students whose parents had not finished high school. During the summer months, students from higher income families maintained greater literacy skills because they were



prone to read more and had more exposure to books and a structured reading environment, whereas the lower income and minority students lost literacy skills due to a less unstructured environment. Children from lower income families also received less parental encouragement about their summer reading.

In recent years, educational systems at the federal, state, and local levels have increasingly emphasized the importance of teaching early literacy skills. Federal organizations, including the National Institute for Literacy (NIFL), have produced documents such as *Put Reading First* (2001) in an attempt to work with researchers, educators, parents, and policy makers to determine the critical components of beginning reading and to determine best practices in reading education. As the *Put Reading First* report also indicated, accurate assessment of both prerequisite literacy skills and reading comprehension skills is important to teaching beginning reading.

According to the National Reading Panel (2000) and the National Research Council (1998), the reading competence of a student is affected by his or her proficiency with foundational skills in beginning reading. These documented and research-validated skills are referred to as basic early literacy skills. Mastery of these skills, also known as foundational skills, often differentiates proficient from less proficient readers. Most importantly, instruction in these early literacy skills is usually teacher directed, with the purpose of making sure that all learners have the same type of reading instruction (Kame'enui, Carnine, Dixon, Simmons, & Coyne, 2002; Simmons & Kame'enui, 1998). These basic early literacy skills include the following: (a) phonemic awareness with a focus on the awareness and understanding of the sounds of language, (b) alphabetic

principles dealing with letter sounds that can be blended together and knowledge of letter and sound associations that can be used to decode and read words, (c) accuracy and fluency with connected text, (d) vocabulary and oral language including the ability to understand and use words orally and in writing, and (e) comprehension (Adams, 1990; NRP, 2000; National Research Council, 1998; and Simmons & Kame'enui, 1998). The Dynamic Indicators of Early Literacy Skills (DIBELS) is an early reading assessment that measures reading progress over time. These indicators were developed to quickly and efficiently assess prereading and reading skills in kindergarten through sixth grade, including (a) initial sound fluency; (b) phoneme segmentation fluency; (c) nonsense word fluency; (d) letter naming fluency, which is also an at-risk indicator, at least through Grade 3; (e) a combination of oral reading fluency and retell fluency; and (f) word use fluency. Progress monitoring is done three times during the school calendar year.

DIBELS was developed as part of the early literary skills recommended by the National Reading Panel (2000) and the National Research Council (1998). In this study the following three components were examined: (a) phonological awareness, (b) alphabetic understanding, and (c) automaticity and fluency. Good, Kaminski, and Dill (2000) noted that reliability and validity are two essential measures that are used in the early stages of determining student reading progress. When evaluating the individual progress of students, teachers also use the results on these early reading indicators for specific feedback on reading progress at each grade level.

One DIBELS measure, letter naming fluency (LNF), is included for children in kindergarten and first grade as an indicator of risk. Unlike the other DIBELS measures, LNF does not measure a basic early literacy skill. Although letter names comprise a set of teachable skills, teaching letter names does not always result in reading improvement in the ways characterized by the foundational skills of early literacy (Adams, 1990). However, because the measure is extrapolative of later reading success, it is included as an indicator for students needing additional instructional reinforcement in relation to these basic early literacy skills in order to become successful readers.

In the United States, most, if not all, state departments of education require public schools to administer standardized tests that measure student progress in reading. Currently, the Illinois State Department of Education (ILSDE) evaluates the effectiveness of reading instruction at the third- through eighth-grade levels with the Illinois State Achievement Test (ISAT) and the Illinois Measure of Annual Growth in English (IMAGE), a high-stakes achievement test that determines a school's probationary status. Additionally, beginning in the 2005-2006 academic year, students in kindergarten through Grade 3 in the elementary school in Illinois where this researcher is employed were required to utilize the DIBELS assessment to identify children whose reading achievement was insufficient.

DIBELS measures include tests of word reading and oral reading speed and accuracy because these components are indicators of student knowledge of the alphabetic principle and ability to decode words quickly and correctly, skills that have been identified as necessary components in reading for comprehension (Good, Simmons, &

Kame'enui, 2001). The ILSDE chose to publish individual school system's 2005-2006 DIBELS scores, ranking them in order of year-end performance and cross-year improvement. These scores were made public, but not used to identify a specific school's academic status. However, publishing these scores makes DIBELS performance not only an assessment and instructional tool, but also a high-stakes test (ISBE, 2007).

This researcher is employed in a large urban school district in Illinois, where this study took place. This district's response to the Illinois mandates in terms of improving student achievement in reading was done through the distribution of class reports by scores and level. These measures are reported through multiyear student reports, which consist of retell fluency, word use fluency, and oral reading. The district monitors this process through the use of AIMSweb, a scientifically based, formative assessment system that provides evidence-based evaluation and data-driven instruction. The district defines AIMSweb measures as screening measures that are not designed to be diagnostic. When assessments are completed, results are shared with parents, teachers, and administrators. The purpose of these reports is to provide information about student accomplishment and progress with data indicating how much progress was made from the first test date of the assessment and the last monitored data to the end of the school year. AIMSweb provides over 30 separate benchmarked curriculum-based measurements (CBM), and each measure can be used separately, depending on specific needs. The AIMSweb reports also describe individual student progress using a three-level problem-solving model, including response-to-intervention (RTI). These three levels are as follows:

1. Tier 1, known as the Benchmark, means that all students are assessed through a universal screening sometimes referred to as early identification, general education progress monitoring, and/or annual yearly progress accountability.
2. Tier 2, known as Strategic Monitoring, was designed specifically for at-risk children to be monitored monthly by providing an evaluation of the effectiveness of instructional changes.
3. Tier 3, known as Progress Monitoring, requires that teachers develop annual goals for monitoring the reading progress of all students and for the more frequent monitoring of those students who need specific interventions.

For this study, attention was on a complete screening and progress monitoring in relation to the following components: (a) worldwide education, including all educational settings affiliated with AIMSweb, (b) strategic assessment of at-risk students in remedial programs, and (c) rigorous progress monitoring that consists of goals for the individual education plan (IEP) for children who have severe problems with academic achievement (AIMSweb). The IEP is a written plan developed by the parents and the special education team that specifies the student's academic goals and the instructional methods used to obtain these goals.

#### Statement of the Problem

Reading scores for public elementary students across the country are consistently below the national average (Put Reading First, 2001). The NCLB Act (2001) emphasizes the use of scientifically based studies to provide instruction in reading; however,

qualitative studies of the nonquantifiable factors involved in effective instructional reading programs at the elementary level have been limited, especially concerning how reading achievement may be related to the specific components of an instructional reading program, which includes curriculum, instruction, and assessment. Without this clarification, appropriate remedies for large urban school districts cannot be designed. This problem impacts elementary school students because they cannot perform well academically in school if they do not have strong reading comprehension skills. Many possible instructional factors contribute to this problem, including unclear expectations for teachers in relation to the content of reading instruction, lack of appropriate training for teachers in reading instruction, and ineffective reading instruction in the classroom which can lead to poor reading achievement and contribute to maladaptive behaviors for students who do not read well (Gottlieb, Alter, Gottlieb, & Wishner, 1994). This study contributes to the body of knowledge needed to address this problem by exploring the nonquantifiable instructional factors that contribute to achievement in reading for students in Grades 3 and 4 in a midwestern urban school district.

#### Purpose of the Study

The purpose of this case study was to investigate the nonquantifiable instructional factors that contributed to achievement in reading for students in Grades 3 and 4 in a large urban school district in the midwestern part of the United States. This study also examined how teachers used DIBELS to improve achievement in reading for students in Grades 3 and 4 and how teachers evaluated the effectiveness of their instruction to

improve student achievement in reading in relation to the implementation of DIBELS in the classroom. In addition, this study explored teacher perceptions about the relationship that needs to exist between the student and the teacher in order to improve student achievement in reading. Finally, this study described other instructional and assessment strategies used by the classroom teacher in addition to DIBELS in order to improve student achievement in reading.

### Research Questions

#### *Central Question*

What are the nonquantifiable instructional factors that contribute to the improvement of reading for students in the regular classroom in Grades 3 and 4 in a midwestern urban school district?

#### *Related Questions*

1. How do teachers use DIBELS to improve achievement in reading for students in Grades 3 and 4?
2. What are teacher perceptions about the effectiveness of their instruction to improve student achievement in reading in relation to the implementation of DIBELS in the classroom?
3. What are teacher perceptions about the relationship that needs to exist between the student and the teacher in order to improve student achievement in reading?
4. What other instructional and assessment strategies are used by the classroom teacher in addition to DIBELS to improve student achievement in reading?

### Conceptual Framework for the Study

Constructivism, which views learning from a cognitive perspective, formed the conceptual framework for this study. Constructivists assume that the world is unknowable and that the objects of inquiry are individual perceptions or constructions of reality (Guba & Lincoln, 1994). These realities are understandable in the configuration of abstract mental constructions that are empirically based, local, and specific (Guba & Lincoln, 1994). The constructivist asserts that “knowledge is symbolically constructed and not objective; that understandings of the world are based on conventions; that truth is, in fact, what we agree it is” (Hatch, 1985, p. 161). In this research study, constructivism was the basis for the conceptual framework because constructivism provides an understanding about how students learn to read by explaining how the human mind works in terms of meaning making and knowledge construction, rather than in terms of memory information.

The word constructivism comes from the Latin term *construere*, which is concerned with a way of arranging or giving structure to something (Mahoney, 2003). Therefore, the conceptual meaning of constructivism centers on a continuous process or structure. Those scholars who were credited for being the earliest advocates of constructivism were Lao Tzu, Buddha, and Heraclitus. In a study done on Western civilization, Vico (1668-1744) was credited for the intellectual genealogy of constructivism, along with Kant (1724-1804), Schopenhauer (1788-1860), and Vaihinger (1852-1933). Vico also studied the role of fantasy and myth in relation to human change,



whereas Kant stressed the importance of patterns in thinking. Mahoney (2003) referred to Kant's categories as constructs and schemas.

Even though constructivism has gained strength among educators in recent years, the idea of constructivism is not new (Brooks & Brooks, 1993). Constructivism first came into existence when Socrates, Plato, and Aristotle described how knowledge was formed. Saint Augustine also believed that, when looking for truth, individuals have to rely on their sensory experiences, a belief that made him unpopular with the Catholic Church at that time. Locke was one of the more recent philosophers who believed that human knowledge cannot go further than experience. In support of this belief, Kant argued that the "logical analysis of actions and objects lead to the growth of knowledge and the view that one's individual experiences generate new knowledge" (as cited in Brooks & Brooks, 1993, p.23). Although Piaget was generally given credit for developing the main philosophy of constructivism, Pestalozzi, another Swiss researcher, shared similar conclusions.

Mahoney (2004) noted that cognitive and social psychology have played a key role in the constructivist approach to teaching and learning, just as behavior modification techniques have been the basis for operant conditioning theory within behavioral psychology. The fundamental assumption of constructivism is that individual learners need to actively develop knowledge and skills (Bruner, 1990) and that knowledge is present inside these constructs instead of in the external environment. However, most proponents of constructivism generally agree with Harnard (1982) that it is the

individual's processing of stimuli derived from the environment and the ensuing cognitive structures that generate adaptive behavior, rather than the stimuli themselves.

Dewey (1933) has come to be known as a key philosopher of constructivism. Ausubel (1968), Bruner (1990), and Piaget (1972) are considered the most important theorists of the cognitive constructionists, while Vygotsky (1978) is considered the most influential theorist among the social constructionists. The constructivist approach is based on epistemological and psychological aspects of learning and views instructional design as the groundwork for the development of resources and learning processes in order to facilitate student learning through the construction of meaning in the mind (Fardanesh, 1999). There is no emphasis on predetermined design steps in the constructivist approach. Rather, the emphasis is on principles such as learning in related and authentic contexts; learning in social experiences; having perspective in the learning process; providing the experience of the process of knowledge creation; inducing consciousness of the process of knowledge construction; providing experience and appreciating different perspective; and inducing the use of different presentation modes (Fardanesh, 1999).

The idea that learning is both a cognitive and a social process is largely founded on the work of the developmental psychologists, Piaget and Vygotsky. Piaget (1972) represents the cognitive development approach, and Vygotsky (1978) represents the socio-cognitive approach. The cognitive development approach, according to Piaget, focuses on the development of thinking, reasoning, and problem solving. Piaget was concerned with the structure of thought and the way in which the mind works with

information. Piaget believed that all children experienced four major stages of cognitive development, including the sensorimotor stage, the preoperational stage, the concrete operational stage, and the formal operational stage. In the sociocognitive approach, according to Vygotsky, learning occurs in social situations and therefore is a social process (as cited in Adrianus de Kock, 2000, p. 148). Vygotsky believed that people understand the world by learning both simple and complex concepts of the culture of others. Some of the major points of constructivism are as follows:

1. Students arrive at school with a predetermined global viewpoint, developed by years of previous learning and experience.
2. Students screen all learning and experiences through this global viewpoint, which determines how they interpret what they see.
3. Students can change by altering their viewpoint of the world.
4. Students and teachers can learn from each other.
5. Students learn by doing.
6. Students can be encouraged to construct new ideas if they are allowed to have a voice in the construction of these ideas.

Based on these tenets, the philosophy of constructivism views students as actively engaged in creating meaning. When teachers use a constructivist approach in the classroom, they are looking for what students can analyze, investigate, share, build, and generate, based on what they already know, rather than on what they can mimic. Since teachers are responsible for fostering cognitive growth, they must first be learners and researchers, striving for better awareness of their surroundings and the participants in a

particular instructional moment in order to frequently modify their instruction to more fully engage students in the learning.

According to Tobin and Tippin (1993), constructivism has often been viewed as a way of thinking about knowing and its intention is to build more effective models of teaching and learning. When an individual sends a message and has no knowledge of the recipient of that message, that individual has no idea as to what message was received, and he or she can not accurately interpret the response. Examined in this manner, instruction becomes the establishment and maintenance of a language and a means of communication between the teacher and the students, as well as between the students. Simply submitting information, presenting problems, and acknowledging responses are not precise enough methods of communication for effective learning. In terms of reading instruction, constructivism is an essential concept because the heart of the reading process is the construction of meaning.

In summary, contemporary constructivists argued that students are active agents, engaged in their individual understanding of how knowledge is constructed in a meaningful way. Modern constructivists also argued that it is not feasible for educators to make all of the decisions in relation to student learning nor is it fair to assess student abilities to construct knowledge without having them involved in the decision-making process. Rather, guided instruction that places students at the center of the learning process is needed. In support of this argument, Perkins (1991) observed that students can easily get trapped in the “information jungle” without any experience to guide them. The student centered stationed guided learning environment is regarded as the most suitable

for ill-structured areas of learning (CTGV, 1991). In this study, constructivism is the basis for the conceptual framework because constructivism provides an understanding about how students learn to read in terms of meaning making and knowledge construction, rather than in terms of memory information. Because the student is at the center of the reading process in the constructivist philosophy, teachers can provide much needed guidance in reading instruction that will improve student achievement in reading.

#### Nature of the Study

This research study was based on the qualitative tradition. Creswell (2003) noted that a qualitative approach is chosen when the inquirer makes knowledge claims based primarily on constructivist perspectives. Some of these perspectives can include multiple meanings of individual experiences as well as socially and historically constructed meaning, with the intent of developing a theory or pattern. Other perspectives are often political, issue oriented, collaborative, or change oriented. Qualitative researchers view human behavior as dynamic and changing, and they advocate studying phenomena in-depth and over an extended period of time (Johnson & Christensen, 2004). This researcher chose the qualitative paradigm because qualitative researchers analyze phenomena in their natural settings, making an effort to explain the phenomena in terms of the meaning that people convey to them. Qualitative research also involves the collection and use of a multiplicity of data. This study also collected data in the naturalistic setting of the classroom where multiple perspectives about instruction in reading were evident.

This qualitative study was also built upon the specific tradition or design of case study research. According to Merriam (1988), a case study is a rigorous, holistic description and analysis of a particular instance, phenomenon, or social unit. The case study design was chosen because this study was an intensive, holistic description of the instructional reading programs at two elementary schools. Through the case study design, an in-depth picture of the instructional reading program was presented in relation to student achievement in reading. Merriam (1998) stated that the single most important attribute of case study research is that it is a bounded study, or a single unit that is surrounded by a “fence.” This case study explored the instructional reading programs at two elementary schools in a large midwestern urban school district. The boundaries for this study was the instructional reading program at both schools.

In terms of the methodology of this study, this case study was conducted in a midwestern urban school district located near Chicago, Illinois. The cases involved the instructional reading programs at two K-5 elementary schools in the district, identified as School A and School B. In terms of ethnicity, 9% of students at School A were European American, 12.0% were African American, 85.8% were Latino American, 2% were Asian/Pacific Islander, and 1.1% were Multiracial. In terms of gender, 394 females and 249 male students were enrolled for a total of 653 students. In terms of socioeconomic status, 43.2% of the students were eligible for free and reduced lunch. At School B, 2.9% of students were European American, 17.4% African American, 77.4% Latino American, 0.4% Asian/Pacific Islander, and 1.9% Multiracial. In terms of gender, 279 females and

217 males were enrolled for a total of 496 students. In terms of socioeconomic status, 50.7% of the students were eligible for free and reduced lunch.

The researcher was the sole instrument of data collection and analysis for this study. The methodology of this case study involved data collection from three of the following six sources of evidence recommended by Yin (1994): (a) documentation, (b) archival records, (c) interviews, (d) direct observations, (e) participant observation, and (f) physical artifacts. The three sources of evidence for this case study included interviews, observations, and documents. The researcher interviewed four teachers at each elementary site, two from each grade level, for a total of eight individual interviews. In addition, the researcher observed two teachers at each site, one from each grade level, during an instructional reading lesson for a total of four observations. The researcher also collected documents related to instruction, staff development, and student achievement in reading from each school.

In the data analysis plan, two levels of analysis were used: category construction and theory development. For the first level of data analysis, categories and subcategories were constructed through the constant comparative method of data analysis. Units of data were sorted into groups or categories that had something in common. With regard to the second level of data analysis, developing theory, Merriam (1998) stated that “thinking about data—or theorizing—is a step toward developing a theory that explains some aspect of educational practice and allows a researcher to draw inferences about future activities” (p. 188). A cross-case analysis was conducted in which the information from both schools was analyzed for patterns, themes, and relationships. From that data analysis

and interpretation, a theoretical proposition about reading instruction in relation to reading achievement was confirmed, using the research questions as a guide.

#### Definition of Terms

*Accuracy:* The oral reading of a text without making errors (Harris & Hodges, 1995).

*Automaticity:* The fluent processing of information, requiring little effort or attention and dealing with the capability to decode letters-to-sounds-to-words easily. LaBerge and Samuels (1974) explained that the fluent reader is one whose deciphering processes are habitual, needing no conscious attention. Such capacity enables readers to be fluent in the comprehension and meaning of the text.

*Comprehension:* The complex cognitive method involving reader and text in order to convey meaning. “A recursive process in which the reader may construct new understanding cumulatively while reading or even later when reflecting on the text or connecting it to other texts” (Fountas & Pinnell, 1996, p. 78).

*Constructivism:* “Constructivism enables teachers to become metacognitive guides and empowers students to take control of the learning” (Fosnot, 1996, p. 64). It is a philosophy supported by the cognitive development of Piaget and the social development of Vygotsky that can be used to empower students to develop their own questions about the world around them.

*Curriculum-based measurements:* Easily used diagnostic measurement tools with multiple forms that allow for the ongoing monitoring of academic progress. These measures are based on a program of research and development conducted by Deno and



his colleagues at the University of Minnesota, using the procedures described by Shinn (1989).

*Decoding skill:* The ability to translate print into language (Beaver, 2001).

*Development Reading Assessment:* A literacy test used to measure primary students' independent reading level and reading development stage with respect to basic early literacy skills, including phonemic awareness, alphabetic principle, accuracy/fluency, vocabulary, and comprehension (Beaver, 2001).

*Direct Instruction:* Involves explicit instruction directed by the teacher in relation to understanding goals, detailed presentations to pupils, modeling done by the teacher, the completion of exercises directed by the teacher, and assessment directed by the teacher. The objective of direct instruction is to increase the pace of learning by taking advantage of the efficiency in the technique of instruction (Carnine, 2000; Traub, 1999).

*DORF Benchmark:* The right words read per minute on the Test of Oral Reading Fluency, which determines the level of reading fluency (Beaver, 2001).

*Dynamic Indicators of Basic Literacy Skills (DIBELS):* Measures designed to quickly and efficiently evaluate reading and prereading skills in kindergarten through sixth grade. DIBELS is a literacy test used to measure students' basic literacy skills, including (a) initial sound fluency, (b) phoneme segmentation fluency, (c) nonsense word fluency, (d) letter naming fluency, (e) oral reading fluency, (f) word use fluency, and (g) retelling fluency. All of these constructs are related to one or more of the constructs on the development reading assessment (DRA; Beaver, 2001).

*Fluency:* A mixture of accuracy and fluency. Fluency in oral reading is the freedom from word identification problems that hinders comprehension in reading. Fluency involves the reader's use of cues and strategies while engaged in the process of reading, which includes searching for and using meaning, language structure, and visual information; self-monitoring (checking on one's own reading using meaning, syntax, or visual information); cross-checking one source of information against another; and self-correcting through predicting, monitoring, and searching for additional information (Clay, 1991a, p. 47).

*Instructional strategies:* For the purpose of this study, instructional strategies are those techniques commonly used by most teachers to improve the reading achievement of their students. In this study, specific instructional strategies are recommended by the *SRA Open Court* reading materials and include teacher modeling, systematic and explicit instruction, and inquiry and investigation.

*Low socioeconomic status:* Categorization of families whose children receive free or reduced public school lunches based on economic eligibility.

*No Child Left Behind Act (NCLB):* NCLB (2001) is federal legislation designed to revamp the educational system through greater local control, more choices for parents, accountability for results and flexibility. The NCLB Act focuses on holding individual states accountable for educating all students to the proficient level of reading with respect to five literacy skills, including phonemic awareness, phonics, fluency, vocabulary and comprehension. States are required to implement researched-based practices and provide

technical assistance and professional development for primary school teachers as indicated by the Reading First goals (United States Department of Education, 2001).

*Passage reading:* A planned activity in which students can read stories or text designed to encourage practice and application of decoding and comprehension skills. Passage reading gives students the practice to become accurate and fluent (Beaver, 2001).

*Perception:* A process of organizing and interpreting sensory information that gives meaning to one's environment (Robbins, 2001).

*Phonemic awareness:* The ability to identify and manipulate the individual sounds or vocal gestures in spoken words (National Reading Panel, 2000, p. 7).

*Reading achievement:* Defined for the school district in this study as group student scores on the Dynamic Indicators of Basic Early Literacy Skills: Oral Reading Fluency (DORF), the Illinois State Achievement Test (ISAT) vocabulary and reading comprehension subtests, and the Degrees of Reading Power (DRP) reading comprehension assessment.

*Reading skills:* In this study, reading skills in grade 3 include the main idea, author's point of view, sequence, and making inferences. The reading skills for Grade 4 have been defined as comparing and contrasting, author's purpose, cause and effect, drawing conclusions, and fact and opinion.

### Assumptions

The study was based on several assumptions. The first assumption was that the teachers who were interviewed for this study gave honest answers and provided unbiased information that was representative of other elementary teachers at their grade levels. The

second assumption was that the reporting of individual student achievement scores in reading by the schools in this study was accurate and that the Illinois State Department of Education also reported accurate student demographic data. A third assumption was that the student achievement data in reading represented each student's best efforts on these assessments. Finally, an assumption was made that high quality staff development in relation to the implementation of DIBELS was provided for all teachers in this district.

#### Scope, Delimitations, and Limitations

Case studies are differentiated from other kinds of qualitative research in that they involve rigorous descriptions and analyses of a single unit or bounded system (Smith, 1978), such as an individual, program, event, or group. Therefore, the scope of this exploratory case study was limited to the study of two urban elementary schools in a midwestern setting. The reason for selecting these two sites was that both schools participating in this study served low-income communities. One school achieved Annual Yearly Progress (AYP), and one did not.

This study was delimited in the following ways. First, the study was conducted in two elementary schools in a district that was defined as urban and as of low socioeconomic status. Second, the study was limited to 4 teachers of students in Grades 3 and 4 who were interviewed and 2 teachers who were observed at each site. Third, the time frame of the study encompassed the report periods within the 2007-2008 school year because DIBELS were administered in September, December, and March of each school year. The students and parents received a report of these results each May.

Limitations for this study were related to the case study design. Since the researcher was the sole instrument of data collection and analysis, researcher bias was possible in the data collection process. In addition, the data in this case study were analyzed through category construction and exploration of the categories for potential themes, patterns, and relationships. Again, researcher bias was possible during this data analysis process because the researcher chose what data to discard and what data to keep.

### Significance of the Study

The significance of this exploratory case study is that it may provide increased understanding about the instructional factors that contribute to reading achievement for elementary students. In addition, this study may also provide more information about how teachers perceive the effectiveness of their instruction to improve student achievement in reading in relation to the implementation of early literacy indicators, such as DIBELS, in the classroom. This study may also provide a voice for teachers to talk about what other instructional and assessment strategies, in addition to DIBELS, are used in the classroom to improve reading achievement for elementary students. In addition, this study may be used to help teachers and administrators to intervene early, to focus instruction on basic early literacy skills, and to document progress in an ongoing manner to improve reading achievement for all students. Although this study is limited to two schools located in an urban setting in Illinois, the results may have implications for upper elementary classrooms in similar settings.

Teacher perceptions about the relationship between achievement in reading for low socioeconomic status students and the implementation of early literacy indicators

such as DIBELS may also be significant to elementary school educators. In an era of high-stakes testing and increased accountability, it is important to understand the components of the reading process (Haetel & Lorie, 2004). The establishment of what teachers and administrators perceive as the factors that influence reading achievement for elementary students may provide educators with information that may improve student success in reading by providing direction for more effective instruction in combating illiteracy.

#### Implications for Social Change

According to the report *Becoming a Nation of Readers* (1985), in the past, very little direct reading instruction was evident in most American classrooms, in spite of the fact that reading is considered a basic life skill. However, with the passage of the NCLB federal legislation in 2001, the emphasis on reading instruction at all grade levels, K-12, increased dramatically. Therefore, the implications for social change in relation to early reading instruction concerns the active involvement of teachers in research-based instruction that fosters the development of reading skills that students can utilize during a lifetime of learning. This study indicated that even though reading instruction trends may change, the fact remains that children learn best when provided with direct instruction that uses reading strategies that have been researched and proven to work. More specifically, this study indicated that students will be most successful in reading through a balance of systematic and direct instruction in sound and word recognition, guided practice, and application of skills with extensive reading of decodable text and authentic literature. The participating teachers in this study also consulted one another to discuss

concepts and communicate ideas through collegial observations. Therefore, the implications for social change for teachers may be in relation to authentic professional development that occurs through collaboration rather than isolation. Thus, the implications of this study for improved reading instruction in large urban elementary schools in the United States are significant.

### Organization of the Remainder of the Study

Chapter 1 described the background to the study, the statement of the problem, the purpose of the study, the research questions, the conceptual framework, the nature of the study, assumptions and limitations of the study, and the significance of the study.

Chapter 2 will provide a review of the research literature related to this study. This chapter is organized around the following topics: the conceptual framework, reading legislation, reading fluency and comprehension, vocabulary knowledge, a simple view of reading, curriculum-based measures in reading, socioeconomic status as it relates to reading achievement, reading assessment, and teacher perceptions about how to improve reading comprehension.

Chapter 3 will describe the methodology utilized in this study, including the research paradigm and design, the sampling method used for the case and for the participants, the researcher's role, the data collection instruments, and the data collection and data analysis protocols. In addition, a discussion of the threats to data as well as ethical issues will be provided.

Chapter 4 will be organized according to the following sections: an introduction which will include the purpose of the study and a review of the data collection protocols; Level 1 data analysis involving category construction; Level 2 data analysis involving an examination of the data for patterns, themes, and relationships and the confirmation or rejection of a theoretical proposition; a discussion of nonconforming or discrepant data; a discussion of evidence of data quality; and a summary of the findings.

Chapter 5 will present an interpretation of these findings, using the research questions as a framework. In addition, this chapter will present specific recommendations for action and for future research as well as the implications for positive social change in education. This researcher will also present her reflections about this study and a conclusion.



## CHAPTER 2: REVIEW OF THE LITERATURE

### Introduction

This chapter examines the literature associated with this exploratory case study. This chapter is organized according to the following topics: the conceptual framework, reading legislation, reading fluency and comprehension, vocabulary knowledge, a simple view of reading, curriculum-based measures in reading, socioeconomic status as it relates to reading achievement, reading assessment, teacher perceptions about how to improve reading comprehension, and literature related to the use of differing methodologies to investigate the research questions.

This review of the relevant literature has been designed to provide a knowledge base of appropriate educational theory as well as an analysis of recent and past research in the field of educational reading fluency and reading comprehension. The review begins with a discussion of the conceptual framework of constructivism chosen to guide the study. The next section of the review presents a history of reading legislation, applicable research from 2 decades of reading fluency and reading comprehension research in schools, and features an overview of longitudinal studies as well as literature involving more recent early literacy initiatives. Finally, literature is presented as a foundation for understanding the pedagogical beliefs and practices of teachers in general and how the evolution of DIBELS integration has been defined in classrooms over the course of the past 18 years. Reading assessment is also discussed in terms of high-stakes testing, curriculum based measures, and the relationship of DIBELS to ISAT and IMAGE.

Several strategies were used to search the literature for this study. The Walden University Library was used, employing databases such as Proquest as well as dissertation theses from Walden University. Databases such as EBSCO, Ulrich, Academic Search Premier, Educational Research Complete, and Educational Research Information Center (ERIC) were also used. In searching these databases, key words were used such as *qualitative research case studies, dynamic indicators of basic early literacy skills, and reading comprehension*. Additional key words used in the search included *constructivism, early literacy, reading legislation, reading fluency, vocabulary knowledge, Stan Deno, socioeconomic status and reading achievement, and reading assessment*.

### Conceptual Framework

According to Anderson, Hiebert, Scott, and Wilkinson (1985), substantial advances in understanding the process of reading have been made in the last decade. Other scholars, such as Bernhardt (2005), now agree on the nature of reading. Reading is the process of constructing meaning from written texts; it is a complicated skill entailing the coordination of a number of related sources of information (Anderson et al., 1985).

This researcher has chosen to elaborate on the generalization that reading is a constructivist process. No text is completely self-explanatory. In interpreting a text, readers draw on their store of knowledge about the topic of the text. Readers use their prior knowledge to fill in gaps in the message and to integrate the different pieces of information in the message. That is to say, readers “construct” the meaning (Anderson et al., 1985).

According to the National Research Council (NRC, 2000)

understanding how learners construct knowledge deals with the conception of culturally and linguistically responsive teaching as grounded in constructivist views of learning. From this perspective, learners use their prior knowledge and beliefs to make sense of the new ideas and experiences they encounter in school. A central role of the culturally and linguistically responsive teacher is to support student learning by helping students build bridges between what they already know about a topic and what they need to learn about it. Accepting constructivist ideas about learning does not imply that there is no need for direct instruction, memorization, and essential skills instruction in schools. Once the transmission-oriented strategies prevail, however, their pedagogical value lessens, much to the disadvantage of students. This type of approach to instruction does not give students the opportunities to actively engage in learning and to assimilate new ideas and frameworks into their own habits of thinking. As a result, students become less likely to learn to think critically, to become productive problem solvers, or to acquire skills for working together, all traits that are necessary for accomplishment in life and work (NRC, 2000).

The essence of constructivism involves the belief that people learn through constructing their own understanding and knowledge, gained through their personal experience and reflection upon those experiences. The role of the teacher in a constructivist classroom is transformed from one of purveyor of knowledge to a facilitator who guides children in the construction of their own knowledge (Adams & Burns, 1999). While the roots of constructivist learning can be traced back to antiquity in

the works of Socrates (Brooks, 2004), modern interpretations are based on the major works of prominent child development psychologists from the early to the middle 20<sup>th</sup> century. In the next few pages, the foundational writings of such individuals as Dewey, Piaget, Vygotsky, Bruner, and Ausubel are described in order to provide a better understanding of the cornerstones of constructivism and to describe the link between constructivism and reading.

In a departure from the behaviorist underpinnings of traditional education, Dewey sought to describe how educators should understand the nature of how people think and process information. At the core of his theory was the concept of reflective thinking, which he described as “the kind of thinking that consists in turning a subject over in the mind and giving it serious and consecutive consideration” (Dewey, 1933, p. 3). In other words, accepting knowledge delivered by teachers at face value may not connect the new learning to any previous learning or experience, thus limiting the depth and application of understanding that comes with more reflective thought.

While Dewey (1933) insisted that learning new material and concepts was predominantly the responsibility of the learner, he also described the responsibility of the teacher as one who must stimulate curiosity and fully engage students in the learning process as well as teach students how to think and process information. Dewey argued that the main way to improve student learning is to support the quality and quantity of genuine teaching. In view of the fact that learning is something that students have to do for themselves, the initiative remains with the learner. Instructors are leaders and guides; they maneuver the boat, but the force that propels the boat must come from those who are

learning. The more instructors or are conscious of the past experiences, dreams, desires, and primary interests of their students, the better they will understand the forces at work that ought to be used for the formation of reflective thinking (p. 36).

Dewey (1933) also elaborated on the process he described as the recitation. In traditional as well as constructivist classrooms, this often takes place through teacher-guided questioning, although the traditional behaviorist classroom merely focuses on the rote learning of facts and memorization of simple answers. If utilized to its full extent, questioning leads learners to think reflectively and process information in such a way that “thinking is inquiry, investigation, turning over, probing or delving into, so as to find something new or to see what is already known in a different light” (p. 265).

Jean Piaget, a Swiss-born developmental psychologist, also explored the role of cognitive development. Piaget’s primary work centered on the cognitive development of children; Piaget believed that this cognitive development existed in stages, progressing from birth through adolescence. The stages were presented by Piaget (1983) as the sensorimotor stage from birth to 2 years of age, the preoperational stage from 2 to 7 years of age, the concrete operational stage from 7 to 12 years of age, and the formal operational stage from age 12 through adulthood. Each stage of development was believed by Piaget to be sequential and necessary in order for the next stage to progress. The sensorimotor stage, the first of the four, existed completely prior to the development of language. The next stage, defined as preoperational, featured “language, symbolic play, mental images, and so forth, up until about the age of 7—which permits the representation of thought” (as cited in Bringuier, 1980, pp. 25-26). The concrete

operational stage was characterized by cognitive operations that applied “directly to objects and . . . defined as being internalized or internalizable and reversible” (p. 26), followed by the final formal operational stage that resulted from the capability to think in the abstract and to no longer be dependent upon objects in order to progress in cognitive development.

Additional exploration by Piaget (1962) focused on the two earlier developmental stages, and he was particularly interested in how imitation and the playing of games contributed to the cognitive development of children. Piaget posited that, as children are presented with various schemas or experiences, they begin to assimilate that information into future events as they progress in their learning and begin to imitate themselves and others. Accommodation of these experiences occurs as a child applies previous learning and understanding to new experiences, and both assimilation and accommodation play a fundamental role in the development of a child’s intelligence (Piaget, 1962).

Lev Vygotsky, a Russian psychologist of the early 20<sup>th</sup> century, further elaborated on the development of learning in children. While Vygotsky (1978) wrote extensively on the usage of signs and memory in the development of language, the zone of proximal development in children is perhaps his most significant contribution to constructivist learning theory. In his laboratory work, Vygotsky found that intelligence tests typically used with children often discounted their potential for learning, focusing on their actual knowledge at a point in time; these tests were typically used to track children into specific schools and mental institutions of the day. Vygotsky discovered that children of the same chronological age often learned at a different rate due to

differences in their mental age. His zone of proximal development was thus defined as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 86). Vygotsky argued that mental development in the 20<sup>th</sup>-century often lagged behind physical development and that interaction with adults and peers in the learning process allowed new learning to be internalized and become a part of a child’s independent development.

Jerome Bruner, another prominent psychologist, was largely influenced by the earlier research on child development by Piaget and language development by Vygotsky. Bruner (1960) utilized the previously discussed stages of development in forming the theories presented in his book *The Process of Education*, which had a profound impact on educators and policy makers of the day. The first theme, the role of structure in the learning process, was presented as a critical factor, and Bruner argued that the focus on mastering details and methods was “at the center of the classic problem of transfer” (p. 12) of isolated skills to future learning. Bruner found that, in order for previous knowledge to support later learning, “it must do so by providing a general picture in terms of which the relations between things encountered earlier and later are made as clear as possible” (p. 12). The second theme, readiness for learning, purported that “any subject can be taught effectively in some intellectually honest form to any child at any stage of development” (Bruner, 1960, p. 33), and was critical of learning that was put off due to the fact that it appeared too difficult for younger students to comprehend.

The concept of a spiral curriculum was introduced as a possibility to introduce a child at an early age to “the ideas and styles that in later life make an educated man” (p. 52). A child’s readiness for learning was expanded in the third theme, which sought to encourage increased development of intuitive thinking along with the analytical approach of most educational experiences. Allowing children to guess or experiment while having the freedom of being incorrect was presented as an essential feature of productive thinking. Such an approach, however, “requires a sensitive teacher to distinguish an intuitive mistake—an interestingly wrong leap—from a stupid or ignorant mistake, and it requires a teacher who can give approval and correction simultaneously to the intuitive student” (Bruner, 1960, p. 68). The final theme presented in Bruner’s work was concerned with a child’s motives for learning and proposed that the best stimulus for learning was interest in the material being presented, as opposed to external modes of rewards and punishments. Bruner suggested that “motives for learning must be kept from going passive in an age of spectatorship, they must be based as much as possible upon the arousal of interest in what there is to be learned, and they must be kept broad and diverse in expression” (Bruner, 1960, p. 80).

Much of Bruner’s theory centered upon discovery learning, where students were encouraged to utilize the “natural energies that sustain spontaneous learning—curiosity, a desire for competence, aspiration to emulate a model, and a deep-sensed commitment to the web of social reciprocity” (Bruner, 1966, p. 127). Such a direction for teaching and learning, while not requiring students to discover everything on their own, would develop student competence as well as a confidence in operating independently, providing



students with a “respect for their own powers of thinking, for their power to generate good questions, to come up with interesting informed guesses” (p. 96). Bruner proposed that inherent structural difficulties in schools, however, along with what was imposed upon the learner by the school, typically required a student to experience “restraint and immobility never asked of him before . . . he does not know whether he knows and can get no indication from anybody for minutes at a time as to whether he is on the right track” (p. 114). The role of teachers in developing intuitive and analytical students is to give students “as firm a grasp of a subject as we can, and to make him as autonomous and self-propelled a thinker as we can—one who will go along on his own after formal schooling has ended” (Bruner, 1961, p. 23).

Another educational psychologist, David Ausubel, active in his field in the 1950s to 1970s, developed his teaching and learning models based on the cognitive structures of children that were closely aligned with earlier psychological foundations. Ausubel (1968) proposed that for learning to have substance it must be meaningful in nature and related to prior learning and cognitive processes. He introduced the theory of subsumption, proposing that since learning and knowledge are largely hierarchical in nature, each subsequent learning comes from the “subsumption of potentially meaningful propositions under more inclusive and general ideas in existing cognitive structure” (p.52).

Ausubel differentiated between his meaningful reception learning theory and the use of rote or discovery learning. Although the latter practices could be potentially meaningful, rote learning was often cited as shallow knowledge prone to lapses of memory. Discovery learning, in its purest form, was seen as requiring too much time and

too many resources as learners were left on their own to make meaning of learning activities. He proposed an alternative instructional tool, which he labeled as advance organizer, to assist students in relating new concepts to existing cognitive structures. An organizer is one “whose relevance to the learning task is made explicit,” serving as a tool to assimilate newfound knowledge into the existing cognitive structure of the learner (p. 131). Ausubel proposed that organizers be designed for each new instructional unit to provide an ideational scaffold that would assist students in retaining and incorporating more detailed and differentiated material.

Thus, the writings of Dewey, Piaget, Vygotsky, Bruner, and Ausubel serve to provide a deeper understanding of the theoretical framework of constructivism as the foundation upon which the impact of knowledge on learner interactions is based. This review of their work provides important knowledge of how, according to constructivists, intellectual development in children occurs, and how, when presented with activities that naturally stimulate and engage the learner and are connected to previous learning, such pedagogical approaches can serve to strengthen learner interactions with academic content and with each other. The link between constructivist pedagogy and educational knowledge has resulted in significant changes in teaching and learning while often leading to more collaborative learning environments as students take more responsibility for their own learning (Becker, Ravitz, & Wong, 1999; Becker et al., 2000). The merging of these ideas also provides an understanding of how learners interact with content and with one another while engaged in the process of learning.

In summary, the link between constructivism and learning in general is a close one. As a young child grows from an infant to a toddler, people are often amazed at the amount of learning that the child has experienced. Those early years of development provides students with the foundation for language, physical skills, social understanding, and emotional growth that they will employ for the rest of their lives. Children obtain all of this knowledge before they enter school because they have taught themselves through their experiences in the world. This is how constructivism works. Brooks and Brooks (1995) argued that children teach themselves by collecting information about the world around them. Constructivism acknowledges the construction of new meaning as an amalgamation of prior knowledge, new information, and readiness to learn. Using the basic tenets of constructivism, the teacher guides students to make selections about what new ideas they want to acknowledge and how to fit these new ideas into their established views of the world.

Thus, constructivism has been identified as a philosophy for learning because it encourages learners to construct their own understanding of new ideas. Dewey and Piaget were the first major contemporary theorists to develop understandable ideas of how constructivism was related to the classroom and to child development (Brooks & Brooks, 1995). However, they were not the only scholars to work with constructivism; others, like Vygotsky, also worked with these ideas. The modern definition of constructivism is that it is a philosophy about comprehension and wisdom which explains what “knowing” is and how one “comes to know” (Fosnot, 1996, p. ix). According to Green and Gredler

(2007), constructivism involves the necessary assumption that students learn when they are in charge of their learning and know that they are in charge of that learning.

The next section will provide a historical perspective of federal legislation that has led to changes in curriculum and professional development in reading. The major topics that will be addressed concerning federal reading legislation include the NCLB Act, the Elementary and Secondary Education Act, the Goals 2000: Educate America Act, America Reads, and Reading First. This review of the reading legislation that has been implemented over the past few decades will describe the critical importance of early literacy in American schools and how reading instruction has repeatedly been influenced by federal legislation in order to ensure a quality public education for all children.

### Reading Legislation

The United States government has mandated federal reading policy for the last 40 years in an attempt to improve students' reading achievement. The first policy was implemented through Title I in the 1960s. Title I was established to supplement instruction, specifically reading instruction, for low achieving, low-income children (McGill-Franzen, 2000). Current policy includes the NCLB Act signed by President George W. Bush in 2001 that revised and reauthorized the Elementary and Secondary Act (Blakey & Moskowitz, 2002).

In order to explore this new and innovative federal reading policy, a review of previous literacy policy must be described. The Elementary and Secondary Education Act of 1965 was the first generation of federal educational legislation to assist economically

disadvantaged students (Edmondson, 2004). Title I of this act was the single largest federal education program. In its original format, Title I was established to supplement instruction, especially in reading, of low achieving, low-income students (McGill-Franzen, 2000). Through Title I funding, large resources were allocated to assist educationally deprived children, especially through compensatory programs for the poor. President Lyndon Johnson proclaimed it part of the War on Poverty, with the objective to break the cycle of poverty through improved education (Grossen, 2001).

As a component of President Johnson's War on Poverty, Project Follow Through ran from 1967 to 1995 with a cost estimated at over a billion dollars (Grossen, 2001). Project Follow Through, referred to as the world's largest educational experiment, targeted the most disadvantaged American schools to study methods and philosophies of kindergarten through third grade instruction. These economically and academically challenged schools were to be brought up to the level of the average American school with student achievement as the predictor of success. As student progress was monitored during Grades 5, 6, and every year of high school, direct instruction continued to emerge as one approach that resulted in higher student achievement (Adams, 1990; Grossen, 2001).

The Elementary and Secondary Education Act, according to Spring (1993), had at least three major consequences for future legislative action. First, it signaled a switch from general federal aid to categorical aid by tying federal aid to national policy concerns such as economic growth, poverty, and defense. Second, religious conflict was addressed by directly linking federal aid to parochial school programs that benefited poor children

and not just the institution in which a child was enrolled. Finally, to avoid criticisms of federal control, the reliance on state education departments to administer federal funds resulted in an expansion of state bureaucracies and increased involvement by the state government in educational decision making (Spring, 1993).

In addition to this federal legislation, the U. S. Department of Education was created by the Department of Education Organization Act signed by President Jimmy Carter on October 17, 1979. The Department of Education began operating on May 4, 1980. The primary purpose of the Department of Education was to formulate federal funding programs. The federal role in public education was rather symbolic from the 1980s through the 1990s, with a dramatic increase in policy activity by the states. In the 1980s, *A Nation at Risk* and *Becoming a Nation of Readers: The Report of the Commission on Reading* were both published. States reacted by establishing policies that addressed curriculum requirements, teacher education and certification, assessment of student achievement, and textbook adoption (McGill-Franzen, 2000; Valencia & Wixson, 2000).

In 1994, the federal government attempted to improve the educational system and passed the Goals 2000: Educate America Act. The main goal of this legislation, through educational reform, was to improve learning and teaching. An additional goal of this act was to guarantee all students would come to school ready to learn by the year 2000. A meaning of readiness, however, and a method to achieve this goal were missing, even though Goals 2000 marked a shift in focus to accountability and outcomes.

In 1996, President Bill Clinton introduced a \$260 million literacy initiative for children known as America Reads (1996). The emphasis was on having students reading by the end of third grade. America Reads was a response to the results of the National Center for Educational Statistics (NCES), an organization that argued that the critical time for children to learn to read was from birth to age eight. Through educators, parents, business owners, senior citizens, religious organizations, and volunteers across America, the goal was to make certain that students were engaged in meaningful reading tasks for a half hour per day (America Reads, 1996). During the course of this initiative, students had an opportunity to participate in tutoring programs through work-study programs at the college and university level.

President Clinton followed America Reads with the Reading Excellence Act (REA). This Act was presented in 1998 as a component of the Title II Elementary and Secondary Education Act of the 1965 legislation. This act was planned to address issues related to limited reading proficiency in fourth grade students (McCallion, 2001). The aims of the REA were to ensure that students developed appropriate readiness skills when they entered school and that when these students completed third grade, they were reading at grade level (Reading Excellence Act of 1998, 2002).

To achieve this goal, there were five specific purposes of the Reading Excellence Act. The first purpose was to provide readiness skills so children were ready to read once they entered school. The second purpose was to instruct all students to read as soon as they were able and no later than third grade. The third purpose was to improve the reading skills of students and improve the instructional practices of classroom teachers.

An additional purpose was to increase opportunities for high quality family literacy programs. The final purpose was to provide early literacy intervention to struggling readers in order to decrease of the amount of students inappropriately identified as learning-disabled (Reading Excellence Act of 1998, 2002).

States were permitted to apply for competitive grants through the Reading Excellence Act. The states who were awarded funding then held a competitive subgrant process among eligible schools within the individual state (McCallion, 2001). Schools eligible to apply for a REA grant were considered only if they met at least one of the following criteria: (a) have the highest proportion of students within the system getting free or reduced-price lunch, (b) be in Title I school with an improvement plan, and/or (c) a majority of students must be receiving free or reduced-price lunch (McCallion, 2001). In addition, instructional practices used by classroom teachers became a top priority for professional development under the REA program (Learning First Alliance, 2000).

From 1999 to 2001, 39 state grants targeted to improve reading skills so that all school age students would be reading by the time they completed third grade were awarded funding from the federal government (Reading Excellence Act of 1998, 2003). In 1998, the National Reading Panel was commissioned by the Director of the National Institute of Child Health and Human Development and the United States Secretary of Education to examine a variety of reading instructional approaches and determine their effectiveness (National Reading Panel, 2000). The panel examined 100,000 quantitative research studies. The panel's findings were published in the report of the National Reading Panel titled *Teaching Children to Read*. The findings identified five reading



components that should be taught: (a) phonemic awareness instruction, (b) phonics instruction, (c) vocabulary instruction, (d) fluency instruction, and (e) text comprehension instruction. In addition, the panel recommended using guided repeated oral reading, exploring computer technology, and providing teachers with appropriate and intense training in teaching reading strategies. The panel also recommended that teachers use a combination of strategies incorporated in a plan with definite goals.

The National Reading Panel's (2000) report contributed to the NCLB Act and the Reading First initiative. President Bush signed the NCLB Act of 2001 into law on January 8, 2002 (U.S. Department of Education, 2001). The NCLB Act became the most significant reform of the Elementary and Secondary Education Act since its 1965 enactment (Bloomfield & Cooper, 2003). The NCLB Act is based upon four principles: (a) an emphasis on proven teaching methods that have been known to work, (b) making teachers more accountable for student learning, (c) more flexibility and local control, and (d) increased educational opportunities for parents. One of the major goals of the NCLB Act is to make sure that all public school students will be reading at grade level by the end of third grade. Another goal of the NCLB Act is to narrow and/or eliminate the academic achievement gap between ethnic and racial groups and between economically disadvantaged students and their peers (Bloomfield & Cooper, 2003).

In their discussion of the controversial nature of the NCLB Act, Katz, Stone, Carlisle, Corey, and Zeng (2008) noted a significant emphasis on the national press and the professional literature in relation to the components of the legislation that focus on school accountability for student progress in reading. Katz et al. (2008) noted that

considerable controversy has developed concerning the requirements for annual assessments of reading, the expectations for adequate yearly progress (AYP), and the associated penalties for schools that fail to demonstrate AYP. One aspect of the NCLB Act that is of particular relevance to the special education community is the requirement that children with disabilities be held to the same AYP standards as general education students. The NCLB Act requires that students with disabilities, like their peers, make gains in reading from one year to the next; it does not stipulate the amount of progress that students with disabilities need to demonstrate. Another requirement of the NCLB Act is that states must set criteria for the percentage of students (with and without disabilities) in each school who must meet grade-level expectations in reading if the school is to achieve AYP. These requirements have provoked controversy in relation to two considerations: (a) the assertion on the part of disability advocates that children with disabilities suffer from perniciously low expectations, and (b) the evidence from recent intervention research that students at high risk for reading disabilities can make significant progress in reading with appropriately intensive instruction (Foorman, Francis, Fletcher, Schatschneider, & Mehta, 1998; Lyon, 2001; Torgesen, 2005; and Vellutino, Scanlon, & Tanzman, 1998).

Amid these controversies, the NCLB Act authorized \$26.5 billion in 2002 for educational programs for students in kindergarten through Grade 12 (NEA Today Online, 2002). Although the NCLB Act is not an exclusive reading initiative, it included a \$900 million Reading First plan. The federal government increased Reading First funding for 2003 to \$993,500,000; the 2004 appropriation was \$1,023,923,000, and the 2005 funding

was \$1,041,600,000 (U.S. Department of Education, 2005). Because of the Reading First initiative, the federal government supported the states in their efforts to write competitive grants. In 2002, 20 states were awarded \$412 million during the first year of the six-year initiative to improve student achievement through classroom instruction. Thus, the central role of the federal government in this initiative coupled with significant federal spending also added to the controversy of this legislation.

In relation to this controversial federal legislation, Teale, Paciga, and Hoffman (2007) examined the achievement gap in literacy which they defined as the disparity in academic performance among different groups. These differences in student performance were considered in relation to income, cultural background, or gender. In the United States, scores on the reading and writing tests indicated that students from poverty scored significantly lower in reading and writing than students from middle and high income backgrounds and that a similar gap existed between African American and Latino American students and their higher scoring European American peers, according to the NAEP. In most urban environments, the achievement gap is particularly acute because of the disproportionately high percentages of low-income African American and Latino American students. In a study done by NAEP on Grade 4 and Grade 8 reading achievement in 11 urban districts conducted in 2005 and 2003, results showed that most of the achievement gaps were significantly larger for urban students than for the overall student population.

According to these researchers, the NCLB Act and the Reading First initiative were developed to enhance beginning reading instruction, to raise reading achievement

for all students, and to provide targeted support for the teaching of reading to the most economically challenged schools; these initiatives were underwritten with more federal funding than many had ever imagined, even though the Reading First initiative has experienced some recent problems (Dillion, 2006). Spellings (2007) stated that the Reading First initiative has had a positive effect on early literacy achievement. The findings of this study advised primary grade educators to think comprehensively about what constitutes a good beginning in reading and writing, because a good ending is far more likely when there is a good beginning.

Reading First is considered the academic cornerstone of the NCLB Act (U.S. Department of Education, 2001). According to Manzo (2002), Reading First was put into place to keep a watchful eye on schools who had received federal grant monies without following the research-based requirements of the Reading Excellence Act. Reading First does follows the Reading Excellence Act in that it provides assistance for states, districts, and schools to provide high quality, scientifically based reading research for kindergarten through third grade in minimally functioning schools while ensuring all kindergarten through third grade educators receive appropriate professional development in order to effectively serve students who are at risk of reading failure (Kauerz, 2002; NCLB, 2002).

In relation to the goal that all students must read at grade level at the end of third grade, the NRP concluded that instructional practices must be based upon scientifically based research (U.S. Department of Education, 2001b). Reading First was founded on these scientifically based research practices. The essential components of reading instruction, according to Reading First, are explicit and systematic teaching of phonemic

awareness, phonics, fluency, vocabulary development, and reading comprehension strategies (U.S. Department of Education, 2001). Officials have warned educators that it is too early to look for signs of progress in the NAEP scores because Reading First has only been in effect for three years and many states did not receive funds until 2003 (Wren & Reed, 2005).

In many Reading First schools, it is estimated that as many as 50% to 60% of the students might require three to four times more instruction than the average student just to maintain normal progress in the learning-to-read process (Torgeson, n.d.). Reading First identifies exemplary teachers based on their performance at improving reading instruction. An exemplary teacher is identified as a highly qualified teacher, has been teaching for at least five years, is recommended to be an exemplary teacher by administrators and other teachers, and is currently teaching. An exemplary teacher assists other teachers to improve the essential components of reading instruction practices, mentors these practices, develops curricula aligned with scientifically based reading research, and offers professional development to others (U.S. Department of Education, 2001).

The Reading First initiative is a grant policy that is part of the Title I section of the NCLB Act. Reading First is a six-year entitlement grant available to all states that stresses the importance of using scientifically based reading research as the focus of classroom reading instruction. The goal of Reading First is to ensure that all students learn to read at grade level or above by the end of the third grade (Illinois Department of Education, 2003).

States receiving Reading First funds award competitive grants to local education agencies for eligible Title I schools to improve kindergarten through third grade reading instruction and student achievement. In the State of Illinois, education agencies also allocate funds for technical assistance to local education agencies and schools for providing professional development for all kindergarten through Grade 3 teachers, kindergarten through Grade 12 special education teachers, and all administrators (Illinois Department of Education, 2003).

In recent years, educational systems at the federal, state, and local levels have increasingly emphasized the importance of early literacy. Federal organizations, including the National Institute for Literacy (NIFL), have produced documents such as *Put Reading First* (2001) in attempts to work with researchers, educators, parents, and policy makers to ascertain the critical components of beginning reading and to determine best practices in reading education. Equally important to teaching beginning reading is the accurate assessment of both prerequisite literacy skills and reading comprehension.

In summary, the NCLB Act addresses school accountability by mandating annual testing of all Grade 3 through Grade 8 students and requires that federal school funds be tied to the adequate yearly progress that schools make on these standardized assessments. The major goal of the NCLB Act is to make sure that all public school students are able to read at grade level by the end of Grade 3. A significant emphasis of this legislation focuses on school accountability for student progress in reading. Another requirement of the NCLB Act is that states must set criteria for the percentage of students (with and

without disabilities) in each school who must meet grade-level expectations in reading if the school is to achieve AYP.

However, before addressing reading assessment, a review of the literature related to the skills of fluency and comprehension as well as vocabulary knowledge and an understanding of the reading process itself will be provided. The current literature still indicates a strong connection between reading fluency, reading comprehension, and vocabulary knowledge.

### Reading Comprehension and Fluency

A large and growing body of evidence supports the notion that many students enter school significantly behind their more advantaged and typically developing peers, and that over the course of elementary school, the academic performance gap widens (Alexander & Entwisle, 1988, 1996). Alexander and Entwisle were some of the first researchers to suggest that high school achievement outcomes could be accurately predicted by performance scores as early as Grade 2 for many students. Support for this proposition continues to grow (e.g., Bruck, 1992; Torgesen, Wagner, & Rashotte, 1994). Juel (1988) found an 88% probability of a student being a poor reader in Grade 4 if that student is identified as a poor reader in Grade 1. Shaywitz (1999) and Francis, Fletcher, Shaywitz, Shaywitz, and Rourke (1996) showed that students who had been identified as having significant reading problems in the elementary grades continued to have significant deficits in high school. It seems increasingly clear that the literacy achievement gap that is already present for many students when they enter kindergarten must be effectively closed in the early years of school.

In *Put Reading First*, reading fluency is defined as “the ability to read text accurately and quickly” while having the capacity to read with expression, divide text into meaningful chunks, and use emphasis and tone (Armbruster, Lehr, & Osborn, 2001, p. 22). Unfortunately, the development of reading fluency has been regarded as the most neglected goal in this country’s elementary schools (Allington, 1983). This belief was strengthened when Pinnell discovered that 44% of Grade 4 students in their sample population were reading grade-level texts with less than sufficient reading fluency (Pinnell et al., 1995). These findings have led researchers to question the effect that this deficiency has on children’s ability to gain meaning from connected text. Reading comprehension, often regarded as the essence of reading, is the ability to draw on decoding skills, prior experiences, and vocabulary to understand written text (Durkin, 1989, p.16). According to Duke and Pearson (2002), proficient readers think actively when reading by having clear reading goals, previewing text, making predictions, integrating prior knowledge, and monitoring their understanding of written material. Duke and Pearson (2002) also described how good readers approach various texts differently, paying attention to characters and settings in narrative texts and developing summaries when reading expository texts. Furthermore, skillful readers continue to think and consider texts even when they are not reading.

According to Pinnell et al. (1995) and Rasinski (2000), a strong connection between reading fluency and reading comprehension appears to be evident. For example, the 1992 NAEP results indicated a definite relationship between the ability to read fluently and overall comprehension. Armbruster et al. (2001) argued that this relationship



exists because children with automatic and accurate word recognition are better able to gain meaning from written text than those who struggle to decode individual words. With this knowledge about reading fluency and reading comprehension, questions continue to be of interest.

In their research, Long and Lea (2005) presented a question: Have we been searching for meaning in all the wrong places? Their response was that the distinctive assumptions of the constructionist theory have embraced the principle of searching for meaning. Their argument is that readers attempt to construct a meaning representation that addresses the reader's goals, that is coherent at both local and global levels, and that explains why actions, events, and states are mentioned in the text. This has been at the center of a debate between two different views of reading comprehension.

An examination of the literature on reading comprehension also reveals that one view of comprehension, called the constructionist theory (Graesser et al. 1994; Long, Seely, & Oppy, 1996; Singer, Graesser, & Trabasso, 1994), characterizes comprehension as an active, analytic, and often effortful activity. Readers search for meaning to construct a text representation that is coherent at both local and global levels. Local coherence refers to the knowledge and processes involved in forming conceptual connections among short sequences of clauses. Local coherence is often achieved by means of referential cohesion, or the understanding that two or more text elements refer to the same entity. In contrast, global coherence refers to the knowledge and processes involved in connecting incoming information with one or more overarching themes. According to the constructionist philosophy of learning, global coherence often involves finding

explanations for the actions, events, and states that are explicitly mentioned in a text. This theory gives considerable weight to the involvement of top-down processes during reading. Readers continually search for, and evaluate, background knowledge to satisfy their standard of coherence (van den Broek, Risden, & Husebye-Hartmann 1995).

A second view of reading comprehension, often called memory-based text processing, characterizes comprehension as a relatively passive, bottom-up process (Albrecht & O'Brien, 1993; Gerrig & McKoon, 1998; McKoon, Gerrig, & Greene, 1996; McKoon & Ratcliff, 1998; Myers & O'Brien, 1998). According to this view, both local and global coherence are supported by a passive, resonance process that functions to activate information from general world knowledge and prior text information. Concepts and propositions in long-term memory (LTM) that share features with text elements in working memory (WM) resonate, and their activation increases. These newly activated concepts and propositions are then available for use in interpreting information in WM. The inferences involved in establishing coherence have been described as low-level, perceptual processes, such as those involved in building argument structures (McKoon & Ratcliff, 1998). Kintsch (1988) described inferential processing as the result of a "basic, automatic construction-plus-integration process that normally was sufficient for comprehension" (p. 169). This process is more like perception than problem solving because readers engage in slower, more analytic, inferential processing only when the low-level processes fail to establish coherence.

Long and Lea (2005) also argued that the integration process by which readers derive meaning from a jumble of related activations may constructively be called a

“search after meaning.” Obviously, much theoretical work will be needed to specify the processes involved, but they noted that promising beginnings have been made. Indeed, Long and Lea argued that progress in this field will require comprehensive models from both the bottom up and the top down. To the extent that language comprehension consists of a collaboration of such processes, and educators believe that it does, colleagues may now be in a position to move toward a more complete theory of comprehension. In a special issue of *Discourse Processes*, edited by Long and Lea, the search for meaning was examined in light of current knowledge about the inferential processes involved in creating a coherent text representation. According to Graesser, Singer, and Trabasso (1994), readers attempt to construct a representation of meaning that addresses the reader’s goals, that is coherent at both local and global levels, and that explains why actions, events, and states are mentioned in the text.

In another study, Houtveen and Van de Grift (2007) posed two questions: (a) What are students’ achievement levels in initial reading in Year 3 of primary education, and (b) what measures have an effect on students’ learning gains in relation to their initial reading skills? This study examined the basic features of effective teaching, students’ problems with poor learning performance, and the features of teaching that focus on students who performed poorly. In this study, at the end of Year 3, 90% of all students appeared to be able to read at least 18 three-letter words within one minute. These researchers also observed that the poorer the performances were in December, the more the learning gains seemed to drop. This observation was in accordance with similar findings (Houtveen and Van de Grift, 2007).

One of the most compelling findings from recent reading research is that children who have a poor start in reading rarely catch up. As several studies have now documented, the initial poor reader almost invariably continues to be a poor reader (Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996; National Reading Panel, 2000; Torgesen & Burgess, 1998). Contrary to findings in recent relevant research literature, Houtveen and Van de Grift (2007) found that encouraging an independent learning attitude, self-confidence, and feelings of competence in students, together with creating an exploratory learning environment, showed no significant correlations with students' learning gains for initial reading. One factor that may explain this finding is that initial reading represents a significant technical skill. Initial reading is concerned with acquiring sound-sign combinations, as well as being able to quickly voice the sounds that belong to sign combinations. Perhaps these aspects of pedagogic action play a much more significant role in relation to heuristic skills, such as reading with comprehension.

Since the 1970s, a substantial amount of research has been carried out on the effectiveness of teaching strategies and methods employed by teachers. A review of the literature on teaching effectiveness showed that a specific group of basic teaching measures were more often being applied in classes where students achieve higher learning gains than in classes where groups of students achieve lower learning gains (Cotton, 1995; Creemers, 1991; Ellis & Worthington, 1994; Levine & Lezotte, 1990, 1995; Muijs & Reynolds, 2001; Purkey & Smith, 1983; Sammons, Hillman, & Mortimore; 1995; Scheerens, 1992; Walberg & Haertel, 1992). In particular, effective teaching involves the following: (a) a learning environment that is safe and stimulating

for students, (b) students are given ample opportunity to learn, (c) lessons are organized efficiently and are well-structured, (d) clear instruction motivates students and connects to their background knowledge, (e) students are actively involved in lessons, (f) and student progress is regularly recorded.

Poorly performing students in the Houtveen and Van de Grift (2007) study were defined as those students who scored in the lowest decile of the national frequency distribution for performance. Poorly performing students not only have a lower level of initial reading skills; they also learn less than the other students within the same period of time. This fact is known as the Matthew effect (Merton, 1968; Stanovich, 1986; Walberg & Tsai, 1983). Other research studies showed a combination of learning and behavioral difficulties among students who have substantial reading difficulties (Reid Lyon, 1996). According to Coster (2001), approximately half of all students with reading problems who are between 8 and 12 years of age will develop behavioral difficulties, as well as difficulties in relation to their functioning in a wider society at a later stage. It is unclear what the cause is and what is the effect. One of the most compelling findings from recent reading research is that students who have a poor start in reading rarely catch up. As several studies have now documented, the initial poor reader almost invariably continues to be a poor reader (Francis et al., 1996; National Reading Panel, 2000; Torgesen & Burgess, 1998).

In another study about reading comprehension, Van den Broek, Rapp, and Kendeou (2005) examined both the memory based and the constructionist processes in accounts of reading comprehension. Their study proposed as essential components the

activation of concepts (e.g., propositions) and the establishment of meaningful connections between concepts during reading. The findings of this study revealed that a comprehensive theory of reading comprehension should include both sets of processes.

Additional studies noted that in order to understand the information provided in a text, a reader must make connections between text elements as well as between text elements and prior knowledge. According to the memory based view of text processing, as a text is read, information in the text (and any other information already activated in working memory) will trigger a spread of activation through the reader's knowledge base, activating associated information (Gerrig & McKoon, 1998; McKoon, Gerrig, & Greene, 1996; Myers & O'Brien, 1998; O'Brien, 1995). Memory based processes are autonomous and passive while constructionist processes, on the other hand, are not automatic; they are outcome-oriented and actively guided by readers' propensities for establishing meaning. In general, memory-based processes are considered passive whereas constructionist processes are considered strategic (Graesser et al., 1994; McKoon et al., 1996; McKoon & Ratcliff, 1995; O'Brien & Myers, 1999; Singer et al., 1994).

Previous research has shown that reading processes systematically vary as a function of reading purpose. For example, when reading to study, readers are more likely to engage in processes aimed at establishing coherence than when reading for entertainment (Linderholm & van den Broek, 2002; Lorch et al., 1993; van den Broek et al., 2001). Linderholm et al. (2004) conducted simulations for each reading purpose by varying the model's input parameters to capture differences in readers' standards for

coherence. The point is that text processing includes a variety of underlying mechanisms that attempt to account for the ways in which people read, understand, and remember texts. To delineate these processes, a variety of clarifications has been considered, involving both passive and strategic knowledge activation. Linderholm et al. (2004) argued that only by considering the dynamic interactions of these processes, rather than the viability of each in isolation, can teachers recommend a generalizable theory that appropriately accounts for naturalistic text comprehension. This research study illustrated the importance and validity of these interactions.

In another study, Applegate, Applegate, and Modla (2009) argued that if reading fluency contributes to reading comprehension, highly fluent readers should be expected to perform well in comprehension when reading at their current grade level. However, Applegate et al. (2009) found that was not always the case. In fact, it appears that it is no longer the case that fluency is a neglected goal of American reading education. The origins of the resurgence of interest in reading fluency can be traced back to earlier than the report of the NRP (cited by the National Institute of Child Health and Human Development [NICHD], 2000), but there is little doubt about the report's recognition as a flashpoint for an explosive increase of interest in fluency and its instructional corollaries. Keehn (2003) noted that there seems to be a sizable consensus on two key components of the definition of reading fluency: (a) accurate and automatic word recognition, and (b) reading at an appropriate of speed. Some researchers have reported links between the two (Meyer & Felton, 1999; Miller & Schwanenflugel, 2006), while others have failed to verify a relationship (Schatschneider et al., 2004). Still other theorists added the essential

elements of comprehension and the construction of meaning to these components (Eldredge, 2005; LaBerge & Samuels, 1974; Pikulski & Chard, 2005; Rasinski, 2003; and Samuels, 2007).

LaBerge and Samuels (1974) proposed the idea that reading requires two central tasks of the limited cognitive resources of human beings: word recognition and comprehension. Based on the ideas of LaBerge and Samuels, some researchers have suggested that once they are freed up, attentional resources depleted by basic word recognition can then be directed toward comprehension (Hudson, Lane & Pullen, 2005; NICHD, 2000). Consequently, increases in student fluency should result in increases in reading achievement, particularly comprehension.

Larrotta and Gainer (2008) also noted that a growing body of scholarship in the area of literacy views reading through a sociocultural lens. This view of reading goes beyond the technical skills of decoding sound-symbol relationships to emphasize the importance of cultural, historical, and political contexts for comprehension. Teaching and learning in this framework, therefore, must draw on prior knowledge (Moll, Gonzalez, & Amanti, 2005), based on the background knowledge, life experiences, and linguistic practices of the students and their communities.

In another study, Griffiths, VanDerHeyden, Skokut, and Lilles (2009) reported on the progress monitoring in oral reading fluency within the context of response to intervention (RTI). RTI deals with a system of intervention and assessment that has the potential to advance educational decision making and improve student outcomes. The researchers noted that selecting appropriate measures to make decisions about a student



RTI is a key concern. The most commonly used assessment tool in RTI is curriculum-based measurement (CBM), and there are implications for practice and additional research. This study revealed three approaches to equate passages for progress monitoring. The first approach applies logic to examine variation across passages. This approach uses the readability formula and norming procedures to generate standard passages, considering difficulty to be a feature of the passage itself. The second approach also applies logic to examine variation in individual student performance. This approach is typified by single subject design analysis that considers passage difficulty to be highly contextualized and potentially different for each individual student. The last logical approach to passage equation for progress monitoring is to use the same passage for each monitoring occasion. Theoretically, this approach allows for perfect equivalence because the same words appear in the same order (Griffiths et al., 2009).

Griffiths et al. (2009) also noted that as research validated intervention and decision making processes are sporadically implemented, it is important for researchers to treat efficiency as an operationalized variable. When procedures and materials are developed for RTI decision making, researchers and practitioners will need to address the balance between striving for highly sensitive measures that reach replicable decisions. Slope is used formatively to ensure accelerated learning during intervention and to signal the need for intervention troubleshooting, but it is not a part of the RTI criteria. The Woodcock Reading Mastery Test-Reading (WRMT-R) has often been selected as a technically valid assessment of reading competence. Readability formulas (Spache, 1953; Dale-Chall, 1995) have also been used in a number of studies to estimate passage

difficulty (Daly, Martens, Hamler, Dool, & Eckert, 1999). Most formulas measure both vocabulary and sentence length, as these are the two strongest predictors of text difficulty. The use of readability formulas has been criticized on a number of fronts (Ardoin, Suldo, Witt, Aldrich, & McDonald, 2005). This convergence between norm-referenced and idiographic assessment offers opportunities for advancing what educators know about technically adequate measurement of student learning in order to help more children learn.

In another study, Bashir and Hook (2009) focused on the work of teachers, reading specialists, and speech language pathologists who have integrated fluency skills into all aspects of reading instruction. The purpose of this study was to respond to Kamhi's (2007) challenge to consider two points of view on reading, the narrow and the broad. Kamhi suggested that reading failure will be eliminated if the narrow view of reading is embraced. The advantage of the narrow view lies in the fact that it restricts the question of reading development to the development of accurate and automatic word recognition that is a key component in the development of reading fluency. The broad view, with its inclusion of comprehension and higher order thinking, does not readily lend itself to clear delineation of constituent elements such as cognitive and linguistic.

Wolf (2007) viewed reading as a developmental process that is based on the integration of diverse components into a smooth and automatic foundation on which fluent reading and comprehension are grounded. This study emphasized the complexity of the reading process and the importance of reading fluency. Since fluency incorporates automatic word recognition, it is reflected in the narrow view of reading. The NRP

(2000) stated that fluency plays an important role in reading comprehension.

According to Bashir and Hook (2009), a recent focus on the reader's knowledge of language and discourse as well as sensitivity to the grouping of words into grammatical units underscores the importance of these components in the development of fluency (NRP, 2000; Perfetti, 1990; and Snow et al., 2005). For example, LeVasseur, Macarusa, and Shankweiler (2008) noted that prosody in fluent reading is strongly facilitated by repeated readings of texts in which spaces between phrases and ends of lines at clause boundaries are provided as visible support for sentence structure.

Thus, no single factor can account for the range of challenges that are faced by students who struggle as they learn to read. Educators need to recognize the importance of cognitive, the conceptual framework of constructivism, and linguistic abilities as well as motivational issues. If teachers are to help students to read well and understand what they have read, they must develop reading fluency as well as build prior knowledge, facilitate the underpinnings of word recognition, develop linguistic knowledge and access to different text genre, facilitate verbal reasoning, and teach strategies for comprehension.

Based on the conceptual framework of constructivism, a study by Law, Carol, Sachs, and Sachs (2008) supported current research about the role of beliefs and strategies in text comprehension and learning. The idea that students are active agents of their own learning is accepted widely in the field of cognition and instruction (Bransford, Brown, & Cocking, 2000). Substantial evidence has accumulated, indicating that student beliefs about knowing and knowledge (Hofer & Pintrich, 2002; Mason & Boscolo, 2004; Schommer-Aikins, 2004; and Sinatra, 2001) and their use of self-regulated strategies (

Garcia & Pintrich, 1994; Paris, Byrnes, & Paris, 2001; Pintrich & Zusho, 2002; Pressley & Ghatala, 1990; Winne & Hadwin, 1998; and Zimmerman, 1990) play important roles in influencing learning and development.

Another area of current educational research examined students' beliefs about the nature of knowing and knowledge (Hofer, 2002, 2004; Schraw & Sinatra, 2004; and Sinatra, 2001). Research into epistemological beliefs has shown that students with more sophisticated beliefs perform better in academic achievement (Schommer, 1997), conceptual change learning (Mason, 2003), text comprehension (Schommer, 1990; Schraw, 2000), reflective judgment (Kardash & Howell, 2000) and argumentation (Kuhn & Weinstock, 2002). In fact, studies about student beliefs related to learning and text comprehension concluded that these beliefs about learning are related to theoretical constructs that include conceptions of learning ( Marton, Dall'Alba, & Beaty, 1993; Purdie, Hattie, & Douglas, 1996); implicit beliefs about learning (Bereiter & Scardamalia, 1989); constructivist beliefs (Chan & Law, 2003; Chan & Sachs, 2001; and Lonka et al., 1996) and self-regulated beliefs (Zimmerman & Risemberg, 1997). Drawing from different traditions such as phenomenological studies on the conceptions of learning (Marton et al., 1993) and self-reporting questionnaires (Chan & Sachs, 2001; Lonka et al., 1996; Schommer 1990), differing views of how students think about learning have surfaced. For example, some students see learning as an accumulation of information and knowledge reproduction whereas others see learning as meaning oriented for the purposes of developing understanding and transformation of experience. Pedagogically, these findings highlight the importance of helping children to reflect on their beliefs

when teaching them how to use strategies. This study also provided some preliminary evidence suggesting that meta-cognitive processing in text comprehension involving beliefs and strategies can be identified among school-aged children.

In summary, a review of the current research literature in reading indicates that there is a strong connection between reading fluency and reading comprehension. Among other studies, the 1992 NAEP results found that a definite relationship exists between the ability to read fluently and overall comprehension (Pinnell et al., 1995; Rasinski, 2000). This relationship exists because children with automatic and accurate word recognition are better able to gain meaning from written text than those who struggle to decode individual words (Armbruster et al., 2001). The next section will describe the current literature in relation to vocabulary knowledge which is critical to the ability to read well.

### Vocabulary Knowledge

The assumption that vocabulary knowledge, or the in-depth understanding of specific words, is critical to the ability to comprehend oral and written language seems to be apparent. A meta-analysis conducted by Stahl and Fairbanks (1986) demonstrated the significance of vocabulary knowledge and instruction in relation to text comprehension. Similarly, Anderson and Freebody (1981) determined that the number of difficult words in a text is the strongest indicator of a student's ability to comprehend written material. Interestingly, in 2000, the NRP reported that no experimental studies that met their rigorous criteria could be cited to justify a connecting association between increased vocabulary knowledge and improved reading comprehension. The NRP reported that this

lack of evidence was due to the complexity of defining and measuring vocabulary knowledge (as cited in NICHHD, 2000).

Merriam-Webster (2005) characterized vocabulary as an aggregate or accumulation of words employed by a language, group, individual, or work or in a field of knowledge. The NRP reported that the complexity of defining vocabulary knowledge goes much deeper. They suggested that vocabulary can be subdivided into the following areas, some of which overlap: (a) receptive vs. oral, (b) oral vs. written, and (c) reading vs. writing. This definition suggests that vocabulary knowledge is multilayered and that the various areas of vocabulary knowledge sometimes contain similar characteristics. In addition, the NRP reported that the measurement of vocabulary knowledge using standardized tests is difficult not only because of the complexity of defining vocabulary, but also because standardized test items can only ask a student for a limited number of words on any given administration. Although test makers attempt to compensate for this problem by choosing words that fluctuate significantly in their familiarity, some researchers feel that it is simply not feasible to accurately assess the size of an individual student's vocabulary. Considering the difficulties with defining and measuring vocabulary knowledge, the NRP acknowledged that the significance of vocabulary in reading proficiency has been known for over half a century (as cited in NICHHD, 2000).

The maturity of vocabulary knowledge evolves through oral communication, and this development is critical to making the transformation from verbal to written forms and to understanding written text (NICHHD, 2000). Although there is little experimental evidence to support a causal link between vocabulary and reading comprehension,

intensive vocabulary instruction designed to promote deep word knowledge has been associated with improved reading comprehension (McKeown, Beck, Omanson, & Perfetti, 1983). However, the direct instruction of vocabulary only accounts for a small proportion of a student's vocabulary knowledge (Durkin, 1979; Jenkins & Dixon, 1983). Many researchers have concluded that most vocabulary words are acquired through incidental learning (Nagy, Anderson, & Herman, 1987; Nagy, Herman, & Anderson, 1985). This conclusion is supported by findings demonstrating that reading aloud to students increases the student's vocabularies (Robbins & Ehri, 1994). Moreover, greater positive effects from incidental vocabulary learning than their peers with weaker vocabularies (Anderson, Hiebert, Scott, & Wilkinson, 1985; Nicholson & Whyte, 1992; and Robbins & Ehri, 1994).

In summary, the review of the literature related to vocabulary knowledge indicates that vocabulary knowledge or the in-depth understanding of specific words is critical to the ability to comprehend oral and written language. The maturity of vocabulary knowledge evolves through oral communication, and this development is critical to making the transformation from verbal to written forms and to understanding written text (NICHD, 2000). In addition to vocabulary knowledge, the following section will describe the understanding of the process of reading of decoding and comprehension. This next section will review the literature in relation to the reading process itself, especially in relation to the importance to read with understanding.

#### Understanding the Reading Process

In 1986, Gough and Tunmer introduced the following formula:  $R = D \times C$ .

In this uncomplicated analysis of reading, reading comprehension (R) is considered the product of decoding skill (D) and listening comprehension (C). This means that in order to read with understanding, one must be able to translate print into language and understand the message being conveyed. If either decoding skill or listening comprehension is inadequate, then the comprehension of written text is not possible. Catts, Hogan, Adolf, and Barth (2003) conducted research that supported this view in a two-part longitudinal study. They first examined the variance in reading comprehension accounted for by word recognition and listening comprehension in students monitored in the second, fourth, and eighth grades, and then the changes in word recognition and listening comprehension abilities of poor readers in the second, fourth, and eighth grades. Part one of the study found that word recognition and listening comprehension accounted for most of the variance in reading comprehension across grades, but that the influence of these factors differed over time. Word recognition explained larger proportions of variance in reading comprehension in the second grade, less in the fourth grade, and only modest amounts in the eighth grade. In contrast, listening comprehension accounted for more variance in reading comprehension in the eighth grade as opposed to the earlier grades. Similar trends for poor readers at each grade level were found in part two of the study, with the exception that poor readers generally exhibited listening comprehension deficits.

Although the study by Catts et al. (2003) exemplified the importance of both word recognition and listening comprehension for the skilled reader, the study also showed that the number of unique contributions varies over time. When considering proficient



readers, reading comprehension appears to be more dependent on word recognition in the early years whereas listening comprehension appears to be more influential in the later years. While this holds true for most children, poor readers continue to show insufficient listening comprehension skills in the later years. This difference may negatively affect their reading comprehension scores due to the increasing demands on vocabulary knowledge encountered beyond third grade on standardized examinations (Becker, 1977).

Strauss, Goodman, and Paulson (2009) also conducted a study on brain research and reading and how emerging concepts in neuroscience support a constructivist view of the reading process. In their study, emerging concepts from the neuro-scientific study of brain functions are supported by psycholinguistic research on the reading process. These concepts challenge the claim that brain imaging studies have demonstrated the primacy of phonological processing in reading. Over the past 2 decades, the neuro-anatomical study of reading has been a prominent and widely popularized area of scientific research. Using computer enhanced, multi-colored pictures of the living brain in action, created from highly sophisticated neuro-imaging machines, some scientists have concluded that this research has revolutionized understanding of what the brain does during reading and, by implication, how to help children learn to read. As one of the leading figures in this area of research, Shaywitz (2004) commented on her own neuro-imaging investigations of reading. According to Shaywitz, the field of neuroscience is exploding, and recent advances in understanding of the brain mechanisms underlying reading are nothing short of revolutionary. Shaywitz noted that society is on the cusp of a true revolution in its

ability to use science to inform public policy, a revolution in which biological discoveries serve the health and education of children.

Shaywitz (2004) also claimed that recent studies have shown that dyslexia runs in families, and it is carried as a genetic trait. The gene or genes allegedly placed a child carrier at higher risk for dyslexia. In a study, coauthored by Shaywitz (2004) and Meng et al. (2005), dyslexic subjects were identified on the basis of screening for a disorder of phonological processing, and neuroimaging studies were found to be consistent with the latest clinical imaging data (Meng et al., 2005).

According to this research, for more than a century, eye movement studies have demonstrated that about a third of the words in a text are not fixated at all by a reader. The process is clearly selective. This is because the most conspicuous motor activity of silent reading is eye movement, which implies that a detailed analysis of eye movement patterns allows one to “see” the process of silent reading in action. Indeed, research over more than a decade, in which subjects silently read authentic text, but where the reading process can still be inferred via a careful analysis of the reader’s eye movements, has confirmed the fundamental principles of the socio-psycholinguistic model (Paulson & Goodman, 2008). Miscue analysis compares what the reader produces orally with the selective eye fixation patterns, and when eye movement analysis and miscue analysis are combined, the readers get a sense of how the reader’s mental perceptions were constructed from input that the eye provides. The reader also gets a sense of how predictions guide the eye movements themselves (Paulson, 2002, 2005; Paulson & Freeman, 2003). That is precisely what new brain research indicated should happen.

The prediction confirmation view of brain structure and function was developed on the basis of research quite distinct from psycholinguistic research on reading. Therefore, miscue analysis and eye movement studies (Duckett, 2002; Paulson, 2005; Paulson & Freeman, 2003) serve as important substantiations of the theory that brain function fundamentally involves cortically based predictions tested against selectively screened subcortical inputs. At the same time, biological studies of brain function strongly support a constructivist view of reading. These findings follow the pedagogy most commonly called whole language, which is based on treating learning to read as learning in order to make sense of print, and is strongly supported by the prediction memory model of human intelligence. Eventually, as this convergence becomes more widely understood, it should lead to major progress in furthering our understanding of human intelligence and to better understandings of how reading develops and how teachers can support children in learning to read (Strauss et al., 2009).

In another study, Zhang (2008) explored English as a Second Language (ESL) learner development. Reading development was explored in relation to ESL students. In particular, this study focused on investigating the ESL students' understanding of reading and their willingness to be engaged in strategic reading in participatory classroom activities. This study exemplified the importance of cognition for the skilled reader. Recent research has also provided evidence that student awareness, or, meta-cognition, of aspects pertaining to successful second language learning in general and reading comprehension in particular, including learning strategies, is correlated with student success (Anderson, 1991; Block, 1986; Chamot, O'Malley, Barnhardt, El-Dinary, &

Robbins, 1999; Oxford, 2001; Wenden, 1991; and Zhang, 2002b). This ESL study also examined the possible effects of related pedagogy on reading performance. The context for this cognition was based on the reading instruction program, set within a constructivist framework. The instructional reading program emphasized developing the reading proficiency of ESL students.

Zhang (2008) also noted that of all the cognitive activities that humans engage in, reading is the most complex. A good thing about this complexity is that when teachers help students to develop their reading skills, students can learn from the text by themselves. Successful reading requires many basic processes, including the identification of letters, the mapping of letters onto sounds, and the recognition of words and syntax, with the ultimate goal to learn from the text itself (Bernhardt, 2005; Smith, 2004; and Zhang, 2002a). The findings of this ESL study were based on Vygotsky's (1986) socio-cultural perspectives that emphasize the concept that peer sharing and collaborative learning in a conducive environment have the potential to lead to effective learning and improved learner efficacy. The results presented in this study indicated that with instructional intervention through teacher-student dialogs within the framework of constructivist pedagogy. For example, within the learner's Zone of Proximal Development or ZPD, reading strategies were used to reinforce progress in perceived strategy used in reading performance improvement, whereas a neglect of strategy training could possibly lead to the reduction of effective and flexible strategy use, negatively affecting reading comprehension. The procedures used in the teachers' classrooms follow normal instructional practice because of the students' cultural inclinations and because of

the curriculum objectives. This strategy-based instruction in language teaching is used because such an instructional environment makes it possible for teachers and students to co-construct the meaning of text through the dialogic communication of the reading processes and other important factors pertaining to effective and efficient reading. In relation to these classroom procedures, students are given opportunities to reveal the processes of reading in classroom activities through such activities as think-alouds. Activities such as these allow the teacher to obtain relevant information about students' deficits in strategic resources, and students discover the essential ideas about what they should be doing in effective reading, how they should be doing it, and why, when, and where they should be doing it when encountering new reading tasks. Further work is needed to replicate this study and validate some of the tentative recommendations so that ESL reading instruction will be able to address the needs of the students who come from culturally divergent backgrounds.

In summary, understanding the reading process has to do with understanding, and students must be able to translate print into language and understand the message being conveyed in order to read well. The review of the literature about the reading process indicated that decoding and listening comprehension accounted for most of the variance in reading comprehension across grades and that the influence of these factors differ over time. The literature also indicated that when eye movement analysis and miscue analysis are combined, the researcher develops a sense of how the reader's mental perceptions are constructed from input that the eye has provided. With this information, a teacher can

focus on the use of curriculum based measures in reading, particularly in the area of fluency.

In the next section, the literature related to socioeconomic status and reading achievement will be reviewed. The major topics that will be covered in this section will be the impact of low, middle, and upper socioeconomic status on reading achievement as well as a discussion of the Matthew Effects in reading.

### Socioeconomic Status and Reading Achievement

Educational policy and legislation such as the 2001 NCLB Act are attempts to equalize the inequalities seen between higher and lower income students. Kozol (1991) claimed that the American educational system does not provide children from low income families the same educational opportunities as their middle and upper-income counterparts. To make matters worse, data supports the argument that teachers have a tendency to have lower learning expectations for at-risk students (Winfield, 1986). Although teachers and school systems may view struggling and lower income students in a different light than their wealthier peers, one must consider how their environment affects early literacy acquisition.

In relation to this idea and drawing from the Gospel according to Matthew, Stanovich (1986) described the Matthew Effect or how slight differences between children's literacy development gradually develop into much larger differences in reading achievement throughout the elementary school years. Essentially, Stanovich maintained that "the rich get richer" (p. 381) while "the poor get poorer" (p. 382). Stanovich's research produced evidence showing that this is due to the progressive acquisition of the

skills required to eventually become a successful reader. For good readers, environmental factors and instruction affect the development of phonemic awareness, which in turn advances decoding and word recognition skills. The ability to read words, motivate developing readers to read more, which promotes better reading fluency, vocabulary, and text comprehension. Ultimately, the maturity of these reading skills leads to increased intelligence and a continued desire to learn. Stanovich described how the opposite of this effect is also true. Poor phonemic awareness hinders the progress of word recognition skills, inhibiting a child's desire to read, which leads to little reading practice and growth of reading fluency, vocabulary, and text comprehension. Considering this evidence, an investigation into the early literacy of lower socioeconomic children is warranted.

Research studies have also shown that the early reading development of many children living in lower income families is not nurtured to the same extent as it is for their middle and upper income peers (Desimone, 2001; Haycock, 2003; McCormick, 2003). Students living in lower income homes were found to be exposed to fewer literary experiences, verbal and reading-related interactions with their parents, and opportunities to read. Academic progress of low income students has also been found to be hindered by poor communication between their parents and the schools they attend (Desimone, 2001). Furthermore, Senechal, LeFevre, Thomas, and Daley (1998) reported that children of parents who were read to in the home showed superior vocabulary and listening comprehension skills than those who were not. These differences, along with less game

playing, which helps to develop critical thinking skills, tend to place lower income children at a disadvantage for literacy development (Heath, 1991).

Haycock (2003) investigated the level of access children of low income families had to literature versus the available access of middle and upper income children. His study included two low and two middle-to-high income neighborhoods, and he discovered significant differences. The higher income students were found to have approximately 4,000 times the book titles available within their neighborhoods, significantly more available library time, better trained librarians, and more places appropriate for reading. These findings support concerns about the Matthew Effect in reading.

However, in a more positive light, evidence exists that the motivation to read in children from lower income families is similar to the motivation level of their wealthier peers, in spite of having less exposure to books and support for reading (Baker & Scher, 2002).

Baker and Scher (2002) examined the motivation of 65 six-year-old first graders for reading in relation to parental economic backgrounds. They utilized the *Motivation for Reading Scale* to rate four separate components of reading: reading for pleasure, perceived value of reading, perceived competence in reading, and interest in library related activities. Students responded to various questions by choosing which of two fluffy class mascots they were most alike, one with a positive face and one with a negative face. The researchers found socioeconomic background did not affect children's motivation about reading, regardless of their familiarity with storybook reading or library



visits. Essentially, students of both higher and lower income parents perceived reading with generally positive attitudes. The results of this study led the researchers to conclude that, as with any child, it is the poorer students' lack of print concepts and initial struggle with early literacy skills, such as the ability to recognize phonemes in spoken words and acquire decoding skills that, as Stanovich (1986) indicated, eventually decreases their motivation to read.

Studies have also found that phonemic awareness is related to the socioeconomic status of students. The English alphabetic writing system links letters and letter combinations to the phonemes heard in spoken language. By definition, phonemes are “the smallest units into which speech can be divided, and that make a difference to the meaning of a word” (Scarborough & Brady, 2002, p. 303). Liberman and Liberman (1992) described phonemes as the basic vocal gestures found in oral language. Thus, phonemic awareness can be defined as the ability to notice, think about, and work with the individual sounds in spoken words (NIFL, 2005). Share, Jorm, Maclean, and Matthews (1984) determined that phonemic awareness was among the best predictors of a preliterate child's future reading success. Logically, the predictive nature of phonemic awareness exists because the knowledge that spoken sounds are related to the mapping of spellings in written words provides insight into the alphabetic writing system (Stanovich, 1986). Fortunately, when students are taught to identify phonemes within words, they not only gain phonemic awareness, but they also “gain insight into the alphabetic principle and apply their insights in the early word identification” (Murray, 1998, p. 461).

Numerous studies have associated children of low socioeconomic status with low reading achievement (Au, 2000; Chall, Jacobs, & Baldwin; Desimone, 2001; and Guthrie, Greaney, Molfese, Modglin, & Molfese, 2003). Furthermore, this relationship is evident regardless of race or culture (Ratekin, 1978). In a related study, Bowey (1995) sought to determine the influence of phonemic awareness skills on the reading achievement of students of varying economic backgrounds. The longitudinal study included 148 English-speaking children from six preschools in Brisbane, Australia. From preschool through the completion of first grade, students were given various measures of oral language development, phonemic awareness, word identification skill, vocabulary knowledge, and intelligence. Bowey (1995) found that preschoolers who belonged to lower income families were significantly less phonemically aware than those who belonged to wealthier families and that “these differences remained robust even with performance IQ and verbal ability effects statistically controlled” (p.482). This evidence led the researcher to conclude that preexisting phonemic awareness differences are at least partly responsible for early word-level deficiencies in students from lower income families.

In another study, Duncan and Seymour (2000) found that low socioeconomic status for children between the ages of four and eight was highly correlated with weaknesses on letter identification, phonemic awareness, and word identification tasks. Although students from low income families were approximately 17 months behind their wealthier peers in reading achievement, their socioeconomic status did not affect the speed at which they acquired letter and alphabetic knowledge. These findings led

researchers to the conclusion that the lack of foundational literacy skills when entering school for students from poorer families impacted future reading achievement more than income level itself. It appears that the lack of materials, reading experiences, and literary activities in lower income students' environment, rather than income, have the greatest negative impact on their reading achievement.

In summary, a review of the literature related to socioeconomic status and reading achievement indicates that low socioeconomic status has a negative impact on the reading achievement of students. The lack of foundational literacy skills when entering school for children from poorer families impacts future reading achievement more than income level itself. The lack of materials, reading experiences, and literary activities in the environment of lower income students, rather than income, has the greatest negative impact on their reading achievement. In the next section, the literature related to the assessment of reading will be reviewed. More specifically, the literature related to high stakes testing, curriculum based measures, and specific assessments used in the state of Illinois, the site of this study, will be reviewed.

## Reading Assessment

### *High Stakes Testing*

The recent trend towards educator accountability in American schools has become a passionate topic in today's society. Certainly there is a need to ensure the public that teachers and administrators are providing children with instruction that will allow them success in the professional and working worlds. In order to accomplish this objective, numerous states have decided that the most effective strategy is to place great pressure on

schools to improve standardized test scores. In these days of high stakes testing, students' test performance determines which schools or teachers are rewarded or reprimanded.

Although the State of Illinois does not utilize standardized test scores to determine monetary rewards or employment status of its teachers, test scores are utilized to determine whether schools are sufficiently educating their children and whether or not a state takeover is warranted. This movement towards increased school accountability requires reliable assessment measures that inform instruction and that also predict student outcomes as early in a child's development as possible (Carnine, 2000). The increased attention to ensuring effective early reading education seems necessary based on a study by Juel (1988) who found that students who were poor readers at the end of first grade had an 88% probability of remaining poor readers at the end of fourth grade. Considering that reading is a foundational skill fundamental to academic success, students who are not proficient grade-level readers by the end of first grade are likely to experience future academic difficulties.

Due to the increased demands for improving reading achievement, the Illinois State Department of Education requires its schools to monitor the reading progress of K-3 students with the Dynamic Indicators of Basic Early Literacy Skills, Illinois State Achievement test (ISAT) and the Illinois Measure of Annual Growth in English (IMAGE). The DIBELS assessments are Curriculum-Based Measures (CBM) used for the early identification of reading difficulties. These measures assess phonemic

awareness skills, decoding skills, and beginning in the first grade, reading fluency. Reading fluency is assessed using DIBELS Oral Reading Fluency (DORF) measures.

DORF is a standardized test intended for identifying students who are in need of extra instructional reinforcement in the area of accuracy and fluency. Student progress is measured according to the amount of words read accurately while reading a passage aloud for one minute. Test passages have undergone numerous readability estimates to ensure that text difficulty is appropriate for each grade level (Good & Kaminski, 2002). Furthermore, progressive academic benchmarks are provided for each grade that establishes the minimum levels of fluency proficiency. End-of-the-year benchmarks for the first, second, and third grades are 40, 90, and 110 correct words per minute, respectively (DIBELS, 2000-2003).

#### *Curriculum Based Measurements*

Although most standardized assessments of reading are simple to administer and score, they are often expensive and time consuming, not well suited for the consistent monitoring of student progress, have few alternate forms, and provide little relevant instructional information (Fuchs, Fuchs, & Maxwell, 1988; Warrington, 2003). An alternative to these standardized assessments are the curriculum based measurements. In one study, Clarke (2009) examined the use of curriculum based measurements (CBM) to improve achievement. Clark reported that nearly 30 years of empirical evidence of CBM provides valid and reliable indicators of student progress in basic academic areas, especially reading, math, and writing, and the use of CBM can have a positive impact on

student achievement (Foegen, Jiban, & Deno, 2007; McMaster & Espin, 2007).

Yet CBM has not been commonly used by teachers, particularly in general education classrooms (Hosp & Hosp, 2003; Ardoin, Witt, Suldo, Connell, Koenig, & Resetar, 2004) until the advent of responsive to intervention (RTI). Research has shown that CBM can be used in numerous educational decisions, such as screening, eligibility for special education, and reintegration. More recently, researchers have examined the effectiveness of CBM in other areas as well, such as predicting performance on high stakes tests and measuring growth in content areas (Deno, 2003). Mellard and Johnson (2008) discussed the use of CBM from an RTI perspective. Within a RTI model, the types of decisions that a system of progress monitoring can inform included whether a student is making adequate progress in the general classroom, whether a student required a more intensive level of intervention, and whether a student has responded successfully to an intervention and, therefore, can be returned to the general classroom.

As Stecker and Lembke (2005) noted, CBM is a scientifically validated form of student progress monitoring that incorporates standard methods for test development, administration, scoring, and data utilization. Deno (1985) noted that CBM was developed so that teachers would have measurement and evaluation procedures that they could use routinely to make decisions about whether and when to modify a student's instructional program). Clarke (2009) further argued that in an RTI context, the purpose of CBM was to identify students in need of interventions, deciding which level of intervention was most appropriate, and to determine if an intervention was successful. According to Deno and Fuchs (1987), one of the key aspects of CBM is that the "mechanics" which tells how

the test is administered, the directions given to students, and the procedures for scoring are standardized. Deno and Fuchs also noted that when using this data, instructional change becomes one of the most difficult steps for teachers. Wesson (1991) suggested that as districts train their teachers to use CBM, they should encourage them to meet regularly with one another rather than with outside experts to discuss what they are finding. Wallace et al. (2007) argued that CBM appears to be a seamless and flexible system of progress monitoring) that remains a goal of researchers.

In fact, three decades of study have produced a significant research base of reliable and valid CBM measures that schools could use to monitor student progress and support RTI implementation. These CBM tools are brief and easily measured diagnostic instruments with multiple forms that allow for on-going student progress monitoring in order to drive instruction. Due to the current popularity of CBM, the setting of high standards and accountability for student achievement has become a priority.

Stecker, Lembke, and Foegen (2008) indicated that recent reforms in education have emphasized the importance of setting high standards for all students and increasing the accountability expected of education professionals in meeting these high standards for student achievement. These high expectations for student achievement that the NCLB Act has established represent an important but sometimes daunting challenge for teachers. The ultimate purpose for this study was for educators to propose critical components necessary for bringing these goals to fruition which include a technically sound assessment system that will assist teachers in determining whether the instruction that they are providing is effective.

As a research validated form of progress monitoring, CBM has become more popular as an assessment practice, even in general education, and information about CBM has been shared in a format that is easy to understand for practitioners, during both preservice and inservice teacher education (Foegen, Espin, Allinder, & Markell, 2001; Hosp & Hosp, 2003; Scott & Weishaar, 2003). CBM has offered several advantages to teachers that distinguish these measures from typical assessment practices. Researchers continue to develop new CBM tools and to investigate additional applications of progress monitoring procedures. For example, the Research Institute on Progress Monitoring regularly posts new information regarding CBM research on its web site. Recent extensions of the use of progress monitoring systems include uses of CBM data with English language learners (Ramirez & Shapiro, 2006) and for screening and progress monitoring purposes within an RTI framework (Fuchs & Fuchs, 2005; Griffiths, VanDerHeyden, Parson, & Burns, 2006).

A point made by Stecker, et al. (2008) was that the assessment strategies and instructional methods of the past have not proven to be sufficient for meeting the critical goal of raising student achievement levels. Instructional time for educators is a priority because teachers cannot afford to waste valuable time on practices that are ineffective (Rock, Thead, & Gable, 2006), so they must embrace research supported practices as they strived to help all of their students achieve acceptable levels of proficiency. Progress monitoring, using mainly CBM, is a research validated assessment method that provides data critical for evaluating academic performance across the entire spectrum of student achievement. With CBM data, teachers are provided with direct evidence to determine



whether their students are benefiting from the instructional program. When teachers use progress monitoring procedures with their students, they enable low performing students to meet provisions of adequate yearly progress. However, teachers who implement systematic progress monitoring in general classrooms likely will reap benefits not only for students with identified needs but also for their other students, regardless of their achievement levels (Rock et al., 2006).

In one study, Jenkins, Graff, and Miglioretti (2009) estimated reading growth using intermittent CBM progress monitoring. The findings were that teachers and RTI managers could monitor students' reading growth intermittently rather than weekly, as long as they obtained multiple scores at each measurement wave. For teachers who have monitored progress weekly or semiweekly, moving to intermittent measurement will make life easier and free up time for instruction. For teachers who previously viewed weekly progress monitoring as impractical, the idea that they can monitor progress intermittently may make them reconsider their earlier objection (Fuchs & Fuchs, 2002, 2007; Stecker, 2007; and Vaughn & Roberts, 2007).

Nothing distinguishes special from general education as much as special education's attention to students as individuals. Fuchs and Fuchs (1995) described individualized education as the "signature feature of effective special education practice" (p. 528). Within the field of special education, the CBM (Deno, 1985) of reading aloud (RA) from equivalent passages has been the preferred procedure used to monitor reading growth in the elementary years. Deno pioneered this approach "to assist special educators in using progress monitoring data to make meaningful decisions about student progress

and to improve the quality of instructional programs" (Stecker, Fuchs, & Fuchs, 2005, p. 795). In developing CBM, Deno's (1985) goal was to provide researchers with the tools of applied science which allowed them to measure and graph performance daily, introduce instructional modifications, and evaluate performance every few days, a recursive process in which student performance informs teaching (Deno & Mirkin, 1977). Deno's (1985) study targeted a fundamental problem of practice, specifically teachers' understanding of scientifically validated procedures for monitoring reading progress. The majority of CBM research has focused on the psychometric characteristics of single occasion assessments. Fuchs (2004) categorized such investigations as Stage 1 CBM research in contrast to Stage 2 research that focuses on multi-wave growth measurement (Fuchs, Fuchs, Hamlett, Walz, & Germann, 1993; Hintze & Christ, 2004). Although this study focused on the reading growth of special education students, implications for progress monitoring of struggling readers in general education were also indicated. CBM has been proposed as a way to monitor at-risk and struggling readers' response to interventions and to tiers of service within multitiered response to intervention (RTI) frameworks (Fuchs & Fuchs, 2002, 2007; Stecker, 2007; Vaughn & Roberts, 2007).

A specific example of a curriculum based measure that has recently gained in popularity at the elementary level are the Dynamic Indicators of Basic Early Literacy Skills or DIBELS. These curriculum based measures were developed by Deno and colleagues through the Institute for Research on Learning Disabilities at the University of Minnesota in the 1970s and 1980s (Deno & Mirkin, 1977; Deno, 1985; Deno & Fuchs, 1987; and Shinn, 1989). CBM tools were made available by these researchers as

economical and efficient indicators of student achievement in reading. The measures were developed to assess students in each of the basic early literacy skills, a set of researched reading skills. DIBELS materials were originally developed by Deno and his colleagues as a link to the local curriculum (Kaminski & Good, 1996). However, the current DIBELS materials are much more generic and not related to the local school curriculum. According to Fuchs and Deno (1994), the use of these generic CBM materials are now known as General Outcome Measures (GOM).

General Outcome Measures (GOM) also differ in significant ways from other regularly used formative assessment approaches. Teachers often use formative assessments to monitor student progress and to detect strengths and weakness. When teachers use assessments to monitor student progress, they often use a mastery measurement which is the most common type of formative assessment (Fuchs & Deno, 1994). An example of mastery measurements are the end-of-unit assessments. The various measures within a unit assessment allow the teacher to see how well students have learned the skills that have recently been taught. The teacher continues to teach these skills in a sequential order and to assess the mastery of those skills. From test to test, the skills that are assessed change because of the type of tests (pretest, midyear test, and posttest) and the difficulty of the test. Scores can not be compared to one another because these tests are given at different times of the year. Thus, mastery assessments consist of end-of unit tests that assess all of the skills taught throughout the unit. These tests address this question: “Has the student learned the content?” In comparison to

GOMs, they are designed to answer the question, “Is the student learning and making progress toward the long term goal?”

For this study, CBM were used with K-6 students, and they are one of the few alternative forms of assessment where an impressive body of evidence supports the technical adequacy and the practical application of these techniques in the assessment (Deno, 1985; Deno & Fuchs, 1987; Fuchs, Deno, & Mirkin, 1984; Fuchs & Fuchs, 1997; Germann & Tindal, 1985; Marston & Magnusson, 1985; and Shinn, 1989). Today, school psychologists use CBM as a form of performance assessment that measures student abilities across fundamental areas of the curriculum. CBM tools were developed and standardized in order to support frequent and continuous monitoring of student progress in relation to basic skills. The technical sufficiency of CBM for K-6 student reports has also been clearly described in the literature (Fuchs, 1994; Fuchs & Deno, 1994; Marston & Magnusson, 1985; Shinn, Good, Knutson, & Tilly, 1992; Stoner, 1992; and Tindal, 1993).

The original DIBELS (Good, Kaminski, Laimon, & Johnson, 1992; Good, 1994) consisted of ten quick measures which were designed to monitor progress and to support early identification of children with reading problems. The DIBELS measures were first envisioned as downward extensions of CBM reading probes. Teachers have always acknowledged the significance of curriculum based measures, to the extent that they use both point and level estimates of performance. These teachers have determined specific data collection periods, and during that period, teachers often use the point estimate score

to describe the student's progress on a particular skill, while they use the level estimate score as an average of all repeated measures for a specified assignment.

The identification of a set of early literacy skills in the DIBELS literature has also been used to evaluate later reading competence. For example, some important predictors of subsequent reading competence are an understanding of letter names, sound-symbol relationships, and phonemic awareness (Blachman, 1984, 1989; Felton & Wood, 1989; Stahl & Murray, 1994; Stevenson, Parker, Wilkinson, Hegion, & Fish, 1976; and Torgesen, Morgan, & Davis, 1992). DIBELS includes concise measures of each of these significant reading skills along with other general language and related skills. For example, DIBELS measures of language development consist of Story Retell, Picture Description, and Picture Naming Fluency. DIBELS measures designed to assess knowledge of alphabet print are Letter Naming and Sound Naming Fluency, and measures of phonological awareness include Rhyming Fluency, Blending Fluency, Onset Recognition, Initial Sound Fluency, and Phonemic Segmentation Fluency.

During a study conducted by the University of Oregon (Kaminski & Good, 1996), the DIBELS measures of Letter Naming Fluency, Phonemic Segmentation Fluency, and Picture Naming Fluency were administered to a kindergarten group of 18 students. The results indicated that the reliability coefficient was .93 for Letter Naming and .88 for Phonemic Segmentation. For Letter Naming and for Phonemic Segmentation, the reliability coefficient was .99. Criterion related validity coefficients ranged between .58 and .90 for Letter Naming level estimate scores and between .63 and .73 for Phonemic Segmentation level estimate scores. For each measure, the point estimate scores were

similar but indicated somewhat weaker correlation coefficients. The coefficients for Picture Naming Fluency also turned out to be weaker than the other two DIBELS tasks. Kaminski and Good (1996) determined that these DIBELS measures proved to be a reliable and valid indicator of a student's growth toward the mastery of these early literacy skills.

The DIBELS Oral Reading Fluency (DORF) is a standardized and individually administered test that is used for identifying students who are in need of additional instructional reinforcement in the area of reading accuracy and fluency. Student progress is measured according to the amount of words read accurately while reading a passage aloud for one minute. Test passages have undergone numerous readability estimates to ensure that text difficulty is appropriate for each grade level (Good & Kaminski, 2002). Furthermore, progressive academic benchmarks are provided for each grade that establishes minimum levels of fluency proficiency. End-of-the-year benchmarks for the first, second, and third grades are 40, 90, and 110 correct words per minute, respectively (DIBELS, 2003).

Although most standardized assessments of reading are simple to administer and score, they are often expensive and time consuming, not well suited for the consistent monitoring of student progress, have few alternate forms, and provide little relevant instructional information (Fuchs, Fuchs, & Maxwell, 1988; Warrington, 2003). In contrast, CBM are brief, easily measured diagnostic tools with multiple forms that allow for on going student progress monitoring in order to drive instruction. For these reasons, there is increasing provision in public schools today for the use of CBM when assessing

reading achievement (Knutson & Shin, 1991). The DIBELS measures are progressive CBM used for the sole purpose of identifying and remediating beginning reading deficiencies. These measures were created not only to be analytical and diagnostic in nature, but are also correlated with teacher perceptions of the academic readiness of kindergarten students (Ritchey, 2004).

If comprehension, which is the fundamental purpose of reading, is to be measured through standardized achievement tests, and reading fluency is necessary for comprehension, then the assessment of younger students' fluency ability appears justified. A large body of research revealed that DIBELS measures are valid and reliable predictors of student reading achievement on norm referenced achievement tests. Researchers have found statistically significant positive correlations between the DIBELS scores of kindergarten students and various measures of reading ability (Elliot, Lee, & Tollefson, 2001; Hintze, Ryan, & Stoner, 2002; Kaminski & Good, 1996; and Speece, Mills, Ritchey, & Hillman, 2003). Positive correlations have also been noted between first, second, and third grade DIBELS scores and the results of grade-level achievement measures (Cook, 2003; Kaminski & Good, 1996; Moscovitch, 2004).

Thus, the original purpose of DIBELS was to provide specific procedures for CBM (Deno & Mirkin, 1977; Deno, 1985; Deno & Fuchs, 1987; and Shinn, 1989). Kaminski and Good (1996) noted that the materials originally used for DIBELS were often connected to the local curriculum; however, current DIBELS measures are now more generic in nature (Fuchs & Deno, 1994). Because DIBELS were frequently used to keep a watchful eye on the academic growth of students, the measures needed to be

concise, competent, and instructionally applicable (Deno, 1985; Marston, 1989). DIBELS measures were also sensitive in that scores on the measures change as a result of student learning. Thus, DIBELS continues to be a dependable prognosis of reading achievement.

If comprehension, which is the fundamental purpose of reading, is to be measured through standardized achievement tests, and reading fluency is necessary for comprehension, then the assessment of younger students' fluency ability appears justified. A large body of evidence has revealed that DIBELS measures are authentic and dependable predictors of student reading achievement on norm referenced achievement tests. Researchers have found statistically significant positive correlations between kindergarten DIBELS scores and various measures of reading ability (Elliot, Lee, & Tollefson, 2001; Hintze, Ryan, & Stoner, 2002; Kaminski & Good, 1996; Speece, Mills, Ritchey, & Hillman, 2003). Positive correlations have also been noted between first, second, and third-grade DIBELS scores and the results of grade level achievement measures (Cook, 2003; Kaminski & Good, 1996; Moscovitch, 2004).

A recent study by Nelson (2008) indicated that of all the academic problems in education, difficulty with learning how to read is the most pervasive. This study indicated that 80% of referrals for special education evaluations involve reading problems. One solution would be for schools to attempt to prevent reading difficulties from developing (Torgesen, 2002). The first step for this preventive approach would be to identify at-risk readers as early and accurately as possible. In doing this, teachers would have to meet the needs of prevention-oriented educational service delivery models; an example would be



to respond to intervention models, and for this response, several early reading screening instruments were created. One early reading screening instrument, the DIBELS, has, according to Manzo (2005), “come to symbolize the standard for early literacy assessment throughout much of the country” (p. 1). Manzo argued that there is strong evidence that the DIBELS has utility as an exclusionary measure due to its adequate negative predictive power, but not as an inclusionary measure because of its poor positive predictive power. The major finding of Manzo’s (2005) study was that DIBELS is a tool with sufficient scientific evidence for use as a reading screener. According to Manzo, (2005), future researchers should continue to search for universal reading screening measures with adequate diagnostic accuracy characteristics. A start would be to examine the impact of growth on the reading screening process as a potentially fruitful line of research. Due to the complex nature of reading and children’s variable development, early identification of those students at risk for developing reading problems is an inherently difficult pursuit, but essential in efforts to prevent reading problems.

DIBELS is used to monitor progress over time, and teachers use the data to differentiate instruction as needed. Ongoing progress monitoring ensures that adequate progress is made so that students will achieve mastery in the skill in a timely manner. Shelton, Altwerger, and Jordan (2009) noted that reading fluency has been a subject of research and debate for some time. However, the subject of reading fluency has risen to a much higher level of prominence in classroom instruction and assessment since it was incorporated into the Reading First guidelines of the NCLB Act in 2002. The Reading

First guidelines rest heavily on the findings of the NRP (2000) which assumed, but did not establish with scientific evidence, a firm relationship between fluency and comprehension or overall reading proficiency. Actually, the NRP only presented studies that examined possible links of various instructional strategies to increased fluency which was defined as “the ability to read a text quickly, accurately, and with proper expression” (p. 3–5).

Many researchers and classroom teachers alike have raised concerns regarding the use of DIBELS to assess children’s reading ability. Central to these concerns is the questionable validity of an instrument that relies solely on a one-minute measure of reading accuracy and speed as the means for identifying a reader’s level of reading risk. Educators are still considering whether such an assessment can reliably predict children’s ability to read and comprehend non-test reading material or what is known as authentic texts (Allington, 2007; Altwater, Jordan, & Shelton, 2007; Carlisle, Schilling, Scott, & Zeng, 2004; Goodman, 2006; Kamii & Manning, 2005; Pressley 2006, Pressley, Hilden, & Shankland, 2005; Reidel, 2007; Samuels, 2006a, 2006b, 2007; and Schilling, Carlisle, Scott, & Zeng, 2007). These are not just academic questions; DIBELS has had a significant impact on students’ educational progress, teachers’ time and instruction, and schools’ uses of human and economic resources.

In summary, the review of the current literature on CBM indicated that measures such as DIBELS are frequently used to keep track of student academic growth because the measures need to be concise, competent, and instructionally applicable. These measures are also economical and efficient indicators of student achievement in reading,

they are valid and reliable predictors of student reading achievement on norm referenced achievement tests, and they continue to be a dependable prognosis of reading achievement.

### *ISAT and IMAGE*

In addition to the DIBELS measures, it is important to consider the statewide assessments that are given in Illinois, the state where this research study was conducted. Illinois third grade students take the ISAT and IMAGE. Multiple studies have established the ISAT and IMAGE as a valid and reliable measure of reading achievement (Berk, 1998; Harcourt, 2003). As a standardized examination, the ISAT and IMAGE are effective at determining a student's reading achievement relative to his or her peers, but they do not identify specific skill deficiencies. The Illinois State Department of Education (ILSDE) has determined the ISAT and IMAGE to be an authentic and dependable measure of a child's overall reading achievement, as measured by word study, reading vocabulary, and reading comprehension scores. The ILSDE uses the ISAT and IMAGE to assess individual student reading achievement and to determine a school's instructional effectiveness and probationary status. In addition, the ILSDE publishes DIBELS, ISAT and IMAGE scores, making them open to public investigation and scrutiny.

A number of studies have been conducted that support the predictive validity of third grade DIBELS Oral Reading Fluency (DORF) and standardized high stakes achievement tests (Barger, 2003; Buck & Torgesen, 2003; McKenna, 2003; and Shaw & Shaw, 2002). Barger (2003) found a correlation of .73 between third grade students who were able to reach the benchmark of 110 correct words per minute (cwpm) on the Spring

DORF passages and those students who achieved scores at or above grade level on the North Carolina End of Grade Reading Assessment. Similarly, McKenna (2003) discovered a correlation of .66 for students who obtained satisfactory results on the DORF passages and the reading portion of the Oregon Statewide Assessment.

Shaw and Shaw (2002) extended this area of research by correlating Fall, Winter, and Spring DORF third grade fluency levels with reading outcomes on the Colorado State Assessment Program (CSAP). They found that the Fall and Winter DORF scores produced correlations of .73, and the Spring DORF scores correlated at a rate of .80 with the CSAP. Worth noting are the correlations that the researchers found between the Fall and Winter DORF (.91) and the Winter and Spring DORF (.93) passages. Buck and Torgesen (2003) found similar results when comparing third grade DORF scores to the Florida Comprehensive Assessment Test (FCAT), both for the Sunshine State Standards Exam (FCAT-SSS) and the Norm Referenced Test (FCAT-NRT). Correlations of .73, .74, and .53 were found between the DORF and the FCATSSS, the FCAT-NRT, and the math portion of the FCAT-SSS, respectively. Additionally, the researchers disaggregated the data, including correlations for ethnicity and socioeconomic status. Regarding ethnicity, correlations were high, with Latino American DORF scores as the most predictive of FCAT-SSS results. Students who received free or reduced lunch (.70) showed minimal differences from students who paid for lunch (.69). While this study supported DIBELS' ability to predict outcomes on high stakes tests, the findings did not indicate that socioeconomic background or ethnicity had statistically significant effects

on DIBELS' predictive nature on standardized examinations of overall reading achievement.

Moscovitch (2004) examined the relationships between 2002-2003 third grade DORF scores and reading outcomes on the ISAT and IMAGE. The following results were reported: DORF performance correlated with overall school quality; total proficiency did not change after first grade for most students; poverty and minority status were associated with lower oral reading fluency scores; third grade DORF scores were predictive of ISAT and IMAGE reading achievement; and third grade DORF scores were less predictive of ISAT and IMAGE reading achievement for minority students and students from lower socioeconomic backgrounds. Unlike the results reported by Buck and Torgesen (2003), these findings suggested differences in DIBELS' predictive value, depending on ethnicity and socioeconomic status.

As with any research, however, there were some justifiable concerns about the methodology used in this study. ISAT, IMAGE and DORF scores were analyzed using percentages of total proficiency towards a desired goal, calculating the percentage of total number of items correct. DORF scores were examined by analyzing the percentage of words read correctly per minute in relation to the established benchmark of 110 wcpm. For example, a DORF raw score of 110 revealed a total proficiency rating of 100% whereas a DORF raw score of 55 revealed a total proficiency rating of 50%. Moscovitch then compared DORF, ISAT and IMAGE total proficiency ratings, measured in percentages, to evaluate the existing relationships between DORF, ISAT and IMAGE achievement. While these methodologies appear to be a logical approach to calculating

scores for statistical comparisons, there are reasons to interpret these results with caution. First, DORF scores for students who read a minimum of 110 wcpm were categorized as having a total proficiency rating of 100%. By doing this, there is no accounting for the differences between a student who read 110 wcpm and another who may have read 220 wcpm. This means that reading fluency scores used for subsequent correlations with ISAT and IMAGE reading achievement scores for students classified as having equal proficiency ratings could be the same for students reading at significantly different fluency levels. Second, although numerous correlational research studies have been conducted utilizing percentage scores, Huck (2004) stated that true correlational research should employ the statistical analysis of continuous, equal interval scores. It appears that most of the studies conducted have found DORF scores to be predictive of standardized reading achievement test scores, but research evidence has not yet provided a clear picture of the possible impact that socioeconomic status may have on correlations between DORF and standardized tests of reading comprehension.

In summary, the review of the literature on assessment in reading indicates that if comprehension, which is the fundamental purpose of reading, is to be measured through standardized achievement tests, and reading fluency is necessary for comprehension, then the assessment of fluency skills for younger students appears justified. In the next section, a limited number of research studies that concern teacher beliefs about how to improve reading achievement will be examined in order to describe those instructional factors that might influence reading achievement.

### Teacher Perceptions about How to Improve Reading Achievement

An analysis of the literature revealed that there are a limited number of qualitative studies that examine teacher beliefs about how to improve reading achievement in relation to the implementation of the NCLB goal of a balanced literacy program. The NRP (2000) noted that a great deal of effort is required on behalf of the teacher in order to meet the goals established by the NCLB Act. The NRP pointed out that literacy programs need to be based on instructional methods supported by scientific research and that teachers need to be informed of the most effective methods to teach basic literacy skills. Clay (2003) and Fountas and Pinnell (1996) also argued that establishing a balanced literacy program is no trivial task. Within a balanced literacy program, getting students to automatically use strategies learned and developed from phonemic awareness, phonics, vocabulary, fluency, and comprehension training is the primary goal advanced by the NCLB mandates. Since the reading comprehension program component of a balanced literacy program is the heart of an instructional reading program, it is imperative that the teachers receive the proper training before assuming responsibility for helping students to read successfully. A great deal of criticism has been published concerning the implementation of the NCLB mandates in relation to school reading programs (Aldridge, 2004; Brulle, 2005; Butzin, 2004; Gordinier & Foster, 2004; and Wiener & Hall, 2004), but these criticisms remain largely anecdotal and are not focused on teacher beliefs about how to improve student achievement in reading in this NCLB era of accountability.

Greenwood and Abbott (2001) also revealed that a gap exists between research and practice in special education and regular education literacy instruction. In addition,

several studies found that reading instruction practices play an important role in accelerating progress in learning to read (Burns, Griffin, & Snow, 1998 and 1999); when these practices are used in the local schools, evidence indicates that progress is much slower than one would wish (Lyon, 1999). In other words, teachers have been slow to respond to new instructional practices, indicating perhaps that they may not believe that some of these practices will be any more effective than what they are currently using. A number of frequently mentioned explanations for decreasing this gap between research and practice include (a) making the research studies more credible, usable, and available to classroom teachers by increasing the collaboration between researchers and teachers (Gerseten, Morvant, & Brengelman, 1995), (b) aligning practice with current research and accelerating the conversion of research into instructional practice (Carnine, 1997; Simmons, Kuykendall, King, Cornachione, & Kameenui, 2000), (c) working with local teachers to provide leadership roles for teachers whose tasks would consist of converting research studies into practice (Logan & Stein, 2001), (d) creating professional development roles that go further than the customary one time teacher training to bring about effective changes in instructional practice (Boudah & Knight, 1999; Boudah, Logan, & Greenwood, 2001; D. Fuchs & Fuchs, 2001; and Vaughn, Hughes, Klingner, & Schumm, 1998). It remains to be seen if these solutions will actually change the instructional practices of teachers or if these changes will actually improve student reading skills or if these instructional practices will be supported in local schools over an extensive period of time.



Teachers today are faced with important challenges in relation to what they believe about instructional practices in reading. First, changing instructional practices in local schools is never easy to do (Boudah et al., 2001; Simmons et al., 2000), requiring years rather than months (Gersten et al., 1995). Numerous studies have argued that altering teacher practices through didactic classroom training is improbable. However, instructional practices do improve with the addition of consultants who can monitor actual classroom implementation of these practices and provide direct comment to instructors (Boudah et al., 2001; Vaughn et al., 1998). In addition, redirecting literacy instruction to an evidence based approach is often prevented by a lack of understanding concerning how to combine various effective practices into a comprehensive instructional program. For example, in a beginning reading program, scientifically based research strategies such as Reading Mastery, Peer Assisted Learning, and Sound Partners can be utilized in a comprehensive instructional program based on a local school environment and its guiding principles of effective reading instruction (Baker & Smith, 2001). The challenge is to configure the role to be played by various research based practices within a comprehensive reading program at numerous grade levels because the breadth and depth of each practice must be components of the overall equation. The third significant challenge that teachers face involves the measurement of improvement in a renewed curriculum which is frequently lacking or insensitive. Consequently, changes related to instructional practices frequently happen with no proof that (a) planned practices meet standards of fidelity, (b) these practices are working, and (c) if current practices are not

working, whether new changes are working (Deno, 1997; Greenwood & Maheady, 1997).

In a study done by de Jager, Jansen, and Reezigt (2005), they argued that constructivism has changed the traditional view of learning as knowledge absorption into a view of learning as active knowledge construction. These researchers pointed out that students actively process information, using prior knowledge, skills, and strategies and that learning is considered a constructive, cumulative, self-regulated, goal oriented, situated, collaborative, and individually different process of knowledge building and meaning construction (De Corte, 2000). From the educational perspective, there is no longer a need to focus solely on the transfer of knowledge, but there is a need for students to develop the skill of metacognition. The concept of metacognition was introduced by Flavell in 1976, and his characterizations of the main elements of the concept are still in use (Boekaerts & Simons, 1993; De Jong, 1992; Resnick, 1989; Simons, 2000). Metacognition, according to Flavell, encompasses two elements: skills and knowledge. These metacognitive skills, the self-regulating activities shown by learners, are further subdivided into skills that can be used before, during, and after learning activities (Bereiter & Scardamalia, 1989). In summary, both direct instruction and cognition play an important role in the development of metacognitive skills for students. It is also clear, however, that teachers will need to be trained to implement instructional models that support mastery of metacognitive skills for students.

Thus, the research literature related to teacher perceptions about how to improve reading achievement appears to be limited. However, the NRP (2000) noted that a great

deal of effort is required on behalf of the teacher in order to meet the goals established by the NCLB Act. Within a balanced literacy program, providing assistance to teachers in helping students to automatically use strategies related to phonemic awareness, explicit phonics instruction, vocabulary, fluency, and comprehension is the primary goal advanced by the NCLB mandates. It is also clear that teachers need to be trained to implement instructional models in their classrooms successfully.

In the next section, literature related to the use of differing methodologies is also reviewed in order to get a sense of the different types of studies that are available in relation to the instructional factors that may contribute to improving student achievement in reading at K-6 level in public schools. This section will describe a number of quantitative and qualitative studies other than case study research that have been found on this topic.

#### Literature Related to the Use of Differing Methodologies

In conducting this study, the researcher found that this topic was examined in both quantitative and qualitative studies. In several quantitative studies, researchers ((Barger, 2003; Buck & Torgesen, 2003; McKenna, 2003; Moscovitch, 2004; and Shaw & Shaw, 2002) attempted to verify if statistically significant positive correlations existed among results on DORF tests and reading comprehension scores on the Stanford Achievement Test (SAT-10) which is a high-stakes achievement test that determines a school's probationary status and between the DORF tests and the Degrees of Reading Power, a secondary measure of reading comprehension. If these correlations are statistically significant, the DORF can be assumed to be a valid predictor of reading comprehension.

Data analyses from a number of quantitative studies have revealed statistically significant positive correlations between DORF and the SAT-10, between the DORF and DRP, and between the SAT-10 and DRP. Furthermore, a correlational comparison showed these relationships did not differ at a statistically significant level between average income and high income students and students receiving free or reduced lunch. A previous study by Moscovitch (2004) also showed positive correlations between reading fluency as measured by DIBELS and reading comprehension as measured by the SAT-10.

Other quantitative studies have found that children enter kindergarten with a wide range of early literacy skills, such as phonemic awareness and letter naming, which are strongly predictive of later success in reading (Burns, Griffin, & Snow, 1999; Neuman & Dickinson, 2001). Most children develop skills rapidly during their first two years of school. For some children, however, early reading skill deficits at the beginning of kindergarten tend to remain, or even worsen, throughout elementary school (Juel, 1988; Scarborough, 1998; Simmons, Kame'enui, Coyne, & Chard, 2002; and Snow, Burns, & Griffin, 1998). Children who were poor readers at the end of elementary school were most often those who failed to show typical progress in developing early literacy skills during kindergarten and first grade.

A study by Ball and Gettinger (2009) on monitoring children's growth evaluated the effects of providing feedback to kindergarten teachers about children's progress in early literacy skill development. The study examined the effects of feedback on children's performance on DIBELS and the quality of classroom literacy environments as well as

teachers' perceptions of the utility of progress monitoring data. Students who received specific feedback from teachers demonstrated greater improvement on literacy skills compared to students who received no feedback; these observed differences were statistically significant for two subtests, Letter Naming Fluency (LNF) and Phoneme Segmentation Fluency (PSF). These findings suggested that providing feedback to teachers about children's early literacy progress served to increase the performance of their students on subsequent testing, more so than students of teachers who received no feedback. Importantly, these effects were achieved without providing training, recommendations for using the feedback, or ongoing consultative support to help teachers implement instructional changes. Despite statistically significant differences between the two conditions, the proportion of students who met DIBELS benchmark goals at the end of kindergarten did not exceed 51% for either condition. Although feedback led to differentially greater improvement among students, the overall educational significance of providing performance feedback appears to be limited. Overall, teachers did not find feedback highly useful, either because they did not know how to use the information or because they did not have the resources necessary to make instructional modifications. These findings are consistent with previous research on CBM which underscores the limitations of simply providing teachers with performance data, without efforts to demonstrate instructional adaptations, provide training to teachers, or monitor classroom changes (Stecker, Fuchs, & Fuchs, 2005).

Fuchs and Fuchs (2006) also cited a number of quantitative studies that have been conducted in relation to the concept known as Responsiveness to Intervention (RTI)

which has been recommended as an approach for identifying children who may be at risk for reading problems. Fuchs and Fuchs pointed to some possible directions for future research. First, with the increased focus on implementation of RTI, research should continue to examine the application of periodic progress-monitoring in classrooms. In particular, given the pattern of student performance on DIBELS across time (i.e., performance was acceptable in fall and winter, but inadequate by spring), further research may determine whether three data collection points are sufficient for teachers to adequately evaluate their classroom practices and make classroom adjustments. Overall, using DIBELS as a progress monitoring tool within an RTI framework has the potential to help teachers make efficient changes in classroom instruction so that students can make progress in reading at the critical early stages. Based on the results of this study, however, more research appears to be needed to make DIBELS performance feedback a strong intervention.

In another quantitative study, Coleman, Buysse, and Neitzel (2006) addressed questions relevant to periodic progress monitoring of early literacy skills among kindergarten students. The results suggested that, compared to no feedback, providing teachers with feedback leads to greater improvements in student performance on some DIBELS subtests. The methods that teachers use to bring about these improvements, however, remain unclear. Teachers who received feedback reported limited utility of the information for implementing changes in classroom practice; likewise, classroom observations showed that changes to the environment were neither systemically influenced by feedback nor strongly correlated with DIBELS performance. Further

knowledge about how teachers can be supported in their efforts to make use of student progress data and to promote early literacy development is critical for advancing an RTI model and preventing reading failure. The aim of the Coleman et al. (2006) study was, in part, to test this critical assumption underlying RTL. The findings of this study extended existing research in two important ways. First, unlike previous research (Graney & Shinn, 2005), feedback in this study included information about the performance of all students in the classroom, not exclusively students with low reading performance.

Universal progress monitoring and whole class feedback provided to teachers may be more beneficial than feedback targeting individual students in terms of maximizing achievement for all learners. Second, the results of this study suggested that providing teachers with feedback from periodic, class wide progress monitoring can lead to greater gains in students' performance than providing no feedback at all. At the same time, however, the fact that students have a tendency to lose ground on DIBELS benchmarks throughout the year indicates that more feedback may be required to make important class wide changes that help most students. Thus, the Coleman et al. study is an important step toward further research that explores the effects of more frequent feedback and/or different levels of support with feedback (e.g., feedback with instructional recommendations) to maximize the educational impact of the information contained in DIBELS scores.

Even though this review revealed a number of quantitative studies, the literature revealed only a limited number of qualitative studies in relation to this topic. For example, a mixed methods study on this topic demonstrated that reading proficiency is

the foundation for the study of all other school subjects (Moscovitch, 2004).

Participants in this study were third through fifth grade students in a Title I program in one rural, southern school. The quantitative portion of this research was conducted to investigate the connection between reading achievement as measured on the *Slosson Oral Reading Test Revised* and self-esteem as measured on the *Piers Harris Children's Self-Concept Scale*. A study and a control group completed pre- and post-reading tests and pre- and post self-esteem tests. The qualitative portion of the study used grounded theory design that involved conducting in-depth interviews with the parents or caregivers at the beginning of the study. The findings of this mixed methods study may aid in further examination of the relationship between reading competence and self esteem. This study also found that positive social change can take place through the development of procedures for more effective elementary school reading achievement as a result of Title I assistance in reading for at-risk students.

In other qualitative studies by Connor, Morrison, and Katch (2004) and Connor, Morrison, and Slominski (2006), observations were conducted to determine whether the teacher or the child was directing the child's attention (i.e., teacher managed activities and child managed activities). Connor et al. (2004) found that students with lower fall decoding and vocabulary scores exhibited greater decoding growth in classrooms where students spent more time on teacher managed explicit decoding activities, with small amounts of child managed and meaning focused activities in the fall that increased across the year. However, the opposite occurred for students who started the year with higher decoding and vocabulary scores. For them, time allocated to explicit decoding instruction



had little impact, whereas time allocated to child managed meaning focused activities throughout the year resulted in greater decoding growth. In a preschool study, Connor et al. (2006) found that time allocated to teacher managed and teacher child managed activities was related to preschoolers' alphabetic and letter-word recognition growth, whereas time allocated to child managed meaning focused activities (e.g., book reading) was related to vocabulary growth.

These qualitative studies also indicated that best practices in primary grade classrooms are complex interactions of school level, teacher level, and student level effects. Schools reside in urban or rural settings and vary in their access to social and economic capital. Characteristics of principals and teachers vary as they relate to instructional knowledge and skill. Curriculum varies in the degree to which it is scripted and explicit. Teacher implementation of the curriculum varies in its fidelity as well as its adaptation to the students' entering abilities and changing skill trajectories. The question to ask about beginning reading instruction, then, is not "What are best practices?" but rather "What instructional activities are appropriate for this student at this phase of his or her reading development to maximize achievement outcomes?" In academically diverse classrooms, teachers will need to become expert in assessing students' entering literacy levels, differentiating instruction in small groups on the basis of that assessment, and reshuffling group membership on the basis of continual monitoring of student progress. Only in this way will teachers be able to prevent instructional causalities in the general education classroom.

In summary, the review of the literature related to differing methodologies indicated that a number of quantitative studies exist in relation to this study. However, the literature review also indicated that the number of qualitative studies appear to be limited. For example, in relation to quantitative studies, some researchers ((Barger, 2003; Buck & Torgesen, 2003; McKenna, 2003; Moscovitch, 2004; Shaw & Shaw, 2002) attempted to verify if statistically significant positive correlations existed between the results on DORF tests and on reading comprehension scores related to the Stanford Achievement Test (SAT-10) and between the DORF tests and the Degrees of Reading Power. A number of quantitative studies have also shown that DIBELS have adequate reliability and predictive validity for use in school settings (Good et al., 2002; Kaminski & Good, 1996). In relation to qualitative studies, a mixed methods study on this topic demonstrated that reading proficiency is the foundation for the study of all other school subjects and that there is a relationship between self-esteem and reading competence (Moscovitch, 2004). Studies by Connor et al. (2004) and Connor et al. (2006) indicated that primary level instruction involves complex interactions between the student and the teacher. Both quantitative and qualitative studies have also demonstrated that the use of progress monitoring procedures, such as CBM, have the potential to help teachers make changes in their classroom instruction in order to improve reading proficiency for students.

### Summary

The academic achievement of this country's children is considered by many Americans to be of the utmost importance. Each day the public is continually bombarded

by newspaper, radio, and television reports describing the adequacy or inadequacy of educational policy and practices. Certainly, reading achievement is among the most important of educational goals for this nation's children. Understanding that the foundation of a child's future reading success is often determined before leaving the third grade (Juel, 1988), the continual assessment of literacy skills beginning when children enter kindergarten has become increasingly prevalent in today's public schools. Although literacy involves complex and sometimes difficult skills to acquire, it can be viewed in relatively simple terms. Gough and Tunmer (1986) described the ability to gain meaning from the connected text as the product of decoding skill and listening comprehension. This notion makes perfect sense because students who are able to decode text and understand the meaning that language conveys can comprehend written material. In contrast, if a student cannot read the words or does not understand the message being conveyed, meaning from a written passage cannot be understood. Thus, the level of reading proficiency is determined by the strength of each component, the ease of decoding, and the ability to understand the message. Even when considering reading in this simplistic manner, the potential influence of reading fluency and the importance of background vocabulary knowledge for listening and reading comprehension cannot be discounted. When children are able to read quickly and accurately and are also able to read with expression, emphasis, and tone, they are said to be reading fluently (Armbruster, Lehr, & Osborn, 2001). Regrettably, evidence exists that many children do not read at a level of fluency deemed appropriate for their age (Allington, 1983; Pinnell et al., 1995). Additionally, the understanding of word meanings conveyed in language is

essential for comprehension of written text. Decoding skill, albeit imperative, is worthless if one does not understand the vocabulary essential to a particular language.

Stanovich (1986) created the Matthew Effect in reading in order to explain how children with strong early literacy skills enjoy progressively increased reading achievement over their peers with weaker early literacy skills. In essence, factors and skills leading to early reading success or failure contribute to the future practice and development of vocabulary knowledge and achievement. With success comes exponential development in reading skill, but with failure comes continued frustration and compounded deficiencies in reading skill development. Confounding this relationship is the influence of poverty, which has been associated with lower teacher expectations (Winfield, 1986), a lack of early reading experiences (Desimone, 2001; Haycock, 2003; McCormick, 2003), and, ultimately, poor reading development (Au, 2000; Duncan & Seymour, 2000; Molfese, Modglin, & Molfese, 2003).

Significant effort will be required on behalf of teachers and students in order to meet the goals established by the NCLB Act. Literacy programs will need to be based on instructional methods supported by scientific research, and teachers will need to be informed of the most effective teaching methods to teach their students these basic literacy skills (NRP, 2000). Undeniably, educators maintain that establishing a balanced literacy program is no trivial task (Clay, 2003; Fountas & Pinnell, 1996).

In addition, the continual assessment of early literacy skills has become increasingly prevalent as teachers and schools are held accountable to improve performance on high stakes standardized examinations of reading achievement. The State

of Illinois currently uses the DIBELS assessment for the early identification of reading problems in the areas of letter identification, phonemic awareness, decoding skill, and reading fluency throughout the first four years of school. These assessment procedures have been put into action to identify literacy deficiencies as early as possible so slowly developing readers can be remediated before students take the reading component of the ISAT and IMAGE at the end of third grade. Numerous studies have shown the DIBELS measures to be predictive of reading achievement as measured by standardized examinations (Cook, 2003; Kaminski & Good, 1996; McKenna, 2003; Moscovitch, 2004; Richey, 2004). However, these studies have only been undertaken with one measure of reading comprehension.

Thus, the review of the literature clearly emphasizes the significance of teaching basic early literacy skills, utilizing a mixture of curricula, programs, instructional strategies and approaches. DIBELS can be used to assess student performance in reading efficiently. As the literature also points out, teachers will need to keep doing what is working, to change what is not, and to let outcomes drive the decisions. In the end, as this review indicates, the main purpose of early literacy indicators and other instructional strategies and assessments is to provide students with sufficient, appropriate, effective instruction that results in meaningful growth in reading achievement for all students.

## CHAPTER 3: METHODOLOGY

### Introduction

The purpose of this multiple case study was to explore the instructional factors that contributed to improving reading achievement for students at the elementary school level in Grades 3 and 4 in a midwestern urban school district. This study also examined how teachers used specific early literacy indicators known as the Dynamic Indicators of Early Literacy Skills (DIBELS) to improve reading achievement for these students and how teachers perceived the effectiveness of their instruction in improving student achievement in reading in relation to the implementation of DIBELS in the classroom. In addition, this study explored how teachers perceived the relationship that needs to exist between the student and the teacher in order to improve student achievement in reading. Finally, this study described other instructional and assessment strategies used by the classroom teachers in addition to DIBELS in order to improve student achievement in reading.

This chapter will present the research design and the methodology of this research study. The chapter is organized according to the following sections: research paradigm and design, a restatement of the research questions, setting and population, the researcher's role, data collection procedures, and data analysis procedures. In addition, threats to data quality, the feasibility of the study, and ethical issues related to this study are also discussed.

### Research Paradigm and Design

This research study was based on a qualitative paradigm as opposed to a quantitative paradigm. In a study done by Lincoln and Guba (1985), qualitative research was defined as naturalistic inquiry that “is always carried out, logically enough, in a natural setting, since context is so heavily implicated in meaning” (p. 187). The tradition of qualitative research often relies on the researcher, or human instrument, to be the primary source of data collection and analysis. The qualitative research paradigm often guides the research designs of studies found in school settings, as the tradition allows the researcher to “enter and spend considerable time in schools, families, neighborhoods, and other locales learning about educational concerns . . . the data are collected on the premises and supplemented by the understanding that is gained by being on location” (Bogdan & Biklen, 2003, p. 4).

In addition, Denzin and Lincoln (as cited in Creswell, 1998) noted that qualitative research is defined as multi-method in focus, involving an interpretive, naturalistic approach to the selected topic. This means that qualitative researchers analyze events in their natural settings, making an effort to understand phenomena in terms of the meanings people convey to them. Qualitative research entails the intentional use and collection of a diversity of empirical resources—case study, personal experience, introspection, life story, interviews, observations, historical research, and visual texts—that explain normal and challenging moments and meaning in human lives.

The qualitative paradigm was chosen for this study because it allowed this researcher to build a holistic picture about the instructional reading program at two

elementary schools through the natural setting of the classroom. The qualitative paradigm also allowed this researcher to analyze the data by using rich, thick description to understand the many variables related to the problem of this study. Finally, qualitative research primarily employs an inductive research strategy that builds theory rather than tests existing theory. Since this study involved theory development or what Yin (2003) called a theoretical proposition, the qualitative paradigm was a better choice.

The specific research design for this study was that of an exploratory multiple case study. Cooper (2003) defined research design as a pathway of investigation that focuses on addressing the research question (p. 146). In addition, Creswell (1998) identified the five traditional qualitative research designs as biography, phenomenology, grounded theory, ethnography, and case study. This study was based on a case study research design, which, as stated by Creswell (2003), is an analysis in which the investigator searches in depth a program, an event, an activity, a procedure, or one or more individuals. Yin (2003) also defined case study as “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p. 13). The case(s) are bound by time and activity, and the researcher gathers comprehensive information by means of a variety of data collection protocols over a prolonged period of time (Stake, 1995).

This case study design was chosen because the phenomenon that the researcher wanted to investigate was the instructional reading program at each school. This instructional reading program included the components of curriculum, instruction, and



assessment. Because the boundaries between this instructional program and the context of the program were not always clear, the case study design was a good choice for this study. The case study design also provided the researcher with an opportunity to observe this instructional program in the natural setting of the classroom. In addition, this study included two elementary schools and therefore used a multiple case design.

According to Herriot and Firestone (1983), the findings from multiple case studies are more compelling than the findings from single case studies; in this study, the two schools provided more substantial data in relation to the improvement of reading in a midwestern urban school district. In addition, conducting a multiple case study allowed this researcher to explore any possible variations in the instructional reading program in this school district. These schools were also chosen because they are both Title I, bilingual schools with a high need to improve the reading skills of the students because a majority of the students at each school were from low income families.

This researcher rejected several types of qualitative studies. Ethnography studies involve examining an intact cultural group in a natural setting over an extended period of time by collecting, primarily, observational data (Creswell, 1998). The ethnographic research process is flexible and normally involves examining contextual responses to lived realities encountered in the field setting (LeCompte & Schensul, 1999).

Ethnography was not a good choice for the research design of this study because this study did not examine an intact cultural group over a long period of time.

Grounded theory was also rejected as an appropriate design for this study. In grounded theory studies, the researcher attempts to develop a general theory grounded in

the data collection and analysis of the study; this research design involves using various phases of data collection as well as the enhancement of categories of information (Strauss & Corbin, 1990, 1998). Conducting a grounded theory study involves the constant comparison process of data analysis and the theoretical sampling of different groups to maximize the similarities and the differences of information. However, grounded theory design was not a good choice for this research because the purpose of this study was not to develop a general theory about reading but rather to explore the instructional factors that contributed to achievement in reading for students at the elementary level.

Thus, a case study design provided the best opportunity to explore this phenomenon because, according to Yin (1994), a case study investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident. The case study also focuses on holistic description and explanation (Merriam, 1988), and this study focused on answering “what” and “how” questions, using rich, thick description. According to Yin (1994), the six sources of data that are commonly used in case studies are documents, archival records, interviews, direct observations, participant observation, and physical artifacts. This case study involved facts of collected work and reports of interviews, observations, and documents; therefore, the desire to use multiple sources of evidence was a significant factor in selecting case study design.

## Research Questions

### *Central Question*

What are the nonquantifiable instructional factors that contribute to the improvement of reading for students in the regular classroom in Grades 3 and 4 in a midwestern urban school district?

### *Related Questions*

1. How do teachers use DIBELS to improve achievement in reading for students in Grades 3 and 4?
2. What are teacher perceptions about the effectiveness of their instruction to improve student achievement in reading in relation to the implementation of DIBELS in the classroom?
3. What are teacher perceptions about the relationship that needs to exist between the student and the teacher in order to improve student achievement in reading?
4. What other instructional and assessment strategies are used by the classroom teacher in addition to DIBELS in order to improve student achievement in reading?

### Setting

The setting for this exploratory multiple case study was two elementary schools located in a midwestern urban public school district in Illinois. School A is located on the south side of the city, School B on the west side. Both School A and School B embrace the rich ethnic traditions, customs, and values of this urban community. The number of

minority and low-income students in the community has grown steadily. These research sites, however, are located in a well-established area of the district, and the schools' demographics are quite varied from the district averages, as noted in Table 1.

Table 1

*Racial/Ethnic Background of District and School Sites*

	District	School A	School B
European American	7.2%	0.5%	2.2%
African American	18.3%	13.4%	12.1%
Latino American	71.0%	85.4%	84.1%
Native American	0.1%	0.2%	0.0%
Asian American	1.8%	0.1%	0.4%
Multiracial	1.5%	0.3%	1.2%
Low Income	57.4%	79.2%	66.9%

*Note:* Percentages are from the district's School Report Card 2007.

The school district in this study provides educational services to approximately 17,000 students in grades kindergarten through Grade 12. This school district comprises 24 individual schools, including three preschool sites, one kindergarten center, 14 elementary schools, five middle schools, and one high school with a Grade 9 center and a grade 10-12 center. An alternative high school also provides a unique instructional program that culminates in the completion of a high school diploma. The student body of the district is rich in diversity with the student population defined as 70% Latino American, 22% African American, 7% European American, and 1% other ethnic groups.

School A has an enrollment of 596 students, and School B has an enrollment of 694 students. Both schools are designated as Title I schools.

In this school district, several schools were selected to be bilingual sites due to a significant increase in the Latino American population in the community. School A and School B were two of the schools selected as bilingual sites. The majority of these students are bussed to these schools. In addition, School A has made Adequate Yearly Progress (AYP) for the third year in a row. However, for the 2006-2007 school year, School B was designated by the Illinois State Board of Education as having not met AYP. In fact, for the past three years, School B has not made AYP.

#### Participants

According to Merriam (1998), two levels of sampling are usually required in qualitative case studies. First, the researcher must determine the case to be studied. For this study, the case has been defined as the instructional reading program for children in grades 3 and 4 in a large, urban midwestern elementary school. A purposeful sampling strategy was employed in the selection of the two schools which varied in socioeconomic status, student diversity, and student performance in reading. For this case study, purposeful sampling was chosen because, as Merriam noted, it is based on the assumption that the researcher wants to understand the phenomenon to be studied and consequently needs to choose a sample from which the most can be learned.

Once the instructional reading programs, or cases, for these schools were selected, sampling within the case was conducted. The participants for this study consisted of four teachers from each elementary school for a total of eight teacher participants. These

participants were third and fourth grade teachers. They were purposefully selected as participants for this study by this researcher because these grades are the earliest grades for which the state of Illinois mandates the assessment of both reading fluency and reading comprehension. This means that teachers in Grades 3 and 4 at these elementary schools are required to use early literacy indicators in order to improve reading achievement and make AYP each year. Reading proficiency was measured using assessments mandated by the Reading First grant at these schools. The two assessments utilized to assess reading performance are the oral reading fluency subtest of the DIBELS assessment and the ISAT Basic Multiple Assessment produced by McGraw Hill Publishing Company. The oral reading fluency subtest of the DIBELS assessment was produced by the University of Oregon. Both assessments are given in the academic school year and are used by school districts to assess the skill of children in the various components of reading.

The eight teachers purposefully selected to participate in this study consisted of two males and six females. Three teachers were designated by the district as monolingual teachers who teach English-speaking students. The other five selected teachers were designated Bilingual Sheltered English teachers. Bilingual education was defined in 1970 by the U.S. Office of Education as the use of two languages, one of which is English, as mediums of instruction for the same pupil population in a well-planned program that includes part or the entire curriculum as well as the study of the history and culture associated with the students' native language. An entire program was made available to students which promotes their sense of self-worth and genuine pride in both cultures.

Sheltered English was also an instructional approach used in ESL classrooms.

English was used as the primary language of instruction. The teacher used strategies to encourage comprehension by the student such as illustrating, role playing, modeling, contextualizing, and checking for understanding. Sheltering was sometimes used for older students, after Grade 4, when bilingual education was not available (Campbell, 1996).

First-year teachers were not selected for this study because they were not hired for the 2007-08 academic year in these two building. The teachers who were purposefully selected for this study have been in the district from 3 to 13 years. Staff development for the past few years in relation to reading instruction has focused on the implementation of the DIBELS Oral Reading Fluency (DORF) which was a standardized and individually administered examination of accuracy and fluency with linked text. In addition to providing the two schools with reading content leaders and reading interventionists, the district mandated a number of professional development activities that includes training in Dynamic Indicators for Basic Early Literacy Skills for Success (DIBELS) and Language Essentials for Teachers of Reading and Spelling (LETRS). Also, the teachers discussed instructional strategies in reading at faculty study groups, grade level meetings, and reading focused team meetings. The weekly, job embedded study groups were conducted by the reading content leader who provided training in the specific area of reading instruction.

### Researcher's Role

For this study, this researcher collected and analyzed all data. According to Creswell (2003), since the investigator is often the only instrument for collecting data in qualitative research, it is important that all biases, values, and assumptions be described. This researcher is currently a classroom instructor who has been employed for 20 years at School B, one of the schools in this study. This researcher believes strongly in using research based materials in the classroom. This researcher also believes that providing high quality reading instruction also entails frequently assessing student performance, developing individual educational plans, reflecting on instructional practices, and engaging in action research. In addition, this researcher believes that teachers should use experimental logic when they plan for instruction, and that they should evaluate their students' previous knowledge, construct hypotheses about the best methods for teaching, develop teaching plans based on those hypotheses, observe the results, and base further instruction on the evidence collected. In summary, this researcher strongly supports the implementation of high quality instructional practices in reading that are grounded in the research literature.

In addition to clarifying the researcher's position in order to minimize potential for bias in this study, a multiple case study design was chosen so that the researcher's school was not the sole source of data for this study. In addition, this researcher also purposefully selected the role of a participant observer for this study. According to Merriam (1998),



The researcher's observation activities, which are known to the group, are subordinate to the researcher's role as a participant. The trade-off here was between the depth of the information revealed to the researcher and the level of confidentiality promised to the group in order to obtain information. (p. 101)

Adler and Adler (1994) called the participant observer an active member who is "involved in the setting's central activities, assuming responsibilities that advance the group, but without fully committing themselves to members' values and goals" (p. 380). Therefore, in this study, this researcher tried to maintain a reflective attitude throughout the data collection process in order to remain as objective as possible.

#### Data Collection Instruments

Data collection instruments for this qualitative exploratory case study included an oral questionnaire and a data collection form. The oral questionnaire, which was used to conduct the interviews, consisted of eight open-ended questions and was developed by this researcher based on the research questions (see Appendix B). The researcher used a highly structured format for the interviews, asking each respondent the same set of prepared questions from the questionnaire.

Merriam (1998) described four major categories of questions: hypothetical, devil's advocate, ideal position, and interpretive questions. According to Merriam, asking good questions is the key to getting meaningful data. Hypothetical, devil's advocate, ideal position, and interpretive questions can be used to elicit good data, while multiple and leading questions, as well as questions yielding yes and no answers, should be avoided. Follow-up questions or probes are also an significant component of the

development. The questions that were used in this study were ideal position questions because the respondents were often asked to describe an ideal situation. Ideal position questions elicit both information and opinion. According to Merriam, these questions can be used with virtually any phenomenon under study.

The other data collection instrument that was used in this research was the observation data collection form (see Appendix E). This form was designed by this researcher, and the design of this form was guided by these research questions for this study. Criteria for observation were recommended by Merriam (1998) and included the physical setting of the classroom, the diversity of the classroom, the gender makeup of the classroom, the content of the reading lesson, the instructional strategies used during the lesson, and verbal and nonverbal student responses made during the lesson.

#### Data Collection Plan

In case study research, strict protocols must be followed to ensure the internal and external validity and reliability of the data collected; these protocols also guide the researcher in the data collection process when conducting a multiple case study (Yin, 2003). As a general guide, according to Yin (2003), a case study protocol should include the following components:

1. An overview of the case study project including project outcomes and sponsorship, case study questions, and pertinent readings about the subject matter.
2. Field protocols including presentation of credentials, access to the case study sites, general sources of information, and procedural reminders.

3. Case study questions including the exact questions that the researcher needs when collecting data, “table shells” for specific arrangements of data, and possible sources of information for answering each question.
4. A guide for the case study report including the outline, format for the data, use and presentation of other documentation, and bibliographical information.

These topics indicate why the protocol is important. First, the protocol keeps the researcher targeted on the subject of the case study. Second, preparing the protocol forces the researcher to expect a number of problems, including the way that the case study report is to be finished. This means that the researcher must recognize the audience for the case study report even before conducting the case study. Such forethought helps to avoid disastrous outcomes in the long run (Yin, 2003). The following data collection protocols were formed for the interviews, the observations, and the collection of documents.

#### *Interview Protocol*

The data collection process for the interview began with an initial contact to each teacher by the researcher who scheduled a meeting with all potential participants at their school site. Once the teachers decided to take part in this research, the investigator sent each teacher an invitational letter, a consent form, and a copy of the questions that were to be used in the interview. Following the return of the consent form, the researcher scheduled an interview time with each teacher. The face-to-face interviews took place at the school in a classroom. All participants were asked the same set of interview questions. This researcher conducted individual interviews with four teachers, two at

each grade level, at each school site after school. Each interview took 30 to 45 minutes. The researcher gave verbal directions to the participants, and an opportunity was provided for questions before the interview was conducted. The researcher used a tape recorder to record the interviews and also took notes on the interview form (see Appendix A). At the end of each interview, the researcher reviewed the scripted notes with each participant for accuracy (Yin, 2003).

#### *Observation Protocol*

The observations for this case study were conducted in the classrooms at each selected school. For this study, observations involved two third grade teachers and two fourth grade teachers at each building. Each observation lasted about 45 minutes, which was generally the time allotted every day at each school for instruction in reading. The teaching and learning activities during this instructional reading period were recorded by the researcher in the form of field notes on the observation data collection form (see Appendix F). The specific criteria that guided these observations included the physical environment or classroom setting, diversity of the classroom, gender makeup of the classroom, content of the reading lesson, instructional strategies used during the lesson, verbal student responses during the lesson, nonverbal student responses during the lesson, and questions asked during the lesson.

The teachers to be observed were contacted by the researcher through a phone conversation to determine if they were willing to participate in the observation. Each teacher was mailed an invitational letter, a consent form, and a copy of the criteria that were to be used by the researcher to conduct the observation. Once the consent form had

been returned, the researcher contacted each teacher to set up an observation time. Following the observation, the researcher met briefly with each teacher to review the field notes for accuracy.

#### *Document Protocol*

The documents that were collected for this case study included teacher lesson plans used during the observations, written classroom activities related to reading instruction, staff development handouts related to reading instruction, and assessment data related to student achievement in reading (see Appendix E). The researcher collected the teacher lesson plans and written classroom activities during each observation period. Staff development activities and assessment data related to student achievement in reading were collected from the principal.

#### Data Analysis Plan

According to Yin (1994) and Merriam (1998), two levels of data analysis occur in case study research. These two levels are category construction and developing theory; both levels were used in this study. For the first level of data analysis, categories and subcategories were constructed through the continuous comparative process of data analysis. Units of data and bits of information were sorted into groupings that have something in common. This researcher also followed these guidelines for category construction defined by Merriam (1998) who stated that several strategies for sorting data are used to allow for easy retrieval of data and for cross-analysis of coded categories. The step-by-step process for categorizing data includes naming the categories, determining the number of categories, and figuring out systems for placing data into categories. The

naming categories can come from at least three sources: the researcher, the participants, or sources outside the study such as the literature. The number of categories a researcher constructs depends on the data and the focus of the study. Once this researcher was satisfied with the set of categories derived from the data, these categories were carefully sorted out and made more robust by probing through these data for more units of important information.

In the second level of data analysis, developing theory, Merriam (1998) stated that “thinking about data—or theorizing—was a step toward developing a theory that explains some aspect of educational practice and allows a researcher to draw inferences about future activities” (p. 188). Merriam noted that when categories and their properties are reduced and refined and then linked together by possible hypotheses, the analysis moves in the direction of the improvement of a theory to explain these data’s meaning. For this case study, this researcher developed a theoretical proposition prior to the collection of data. This theoretical proposition suggested that direct instruction supported by the consistent use of early literacy indicators and specific instructional strategies would improve student achievement. This researcher then examined the various categories of data from each single case to find a unifying idea or theory that was revealed by the data. That unifying idea was compared to the theoretical proposition about the use of direct instruction and the consistent use of early literacy indicators in order to determine if these data supported this theoretical proposition or rejected it. In addition, this researcher also considered other rival explanations that were revealed by the data.

Thus, this researcher followed a specific data analysis protocol that was created for this study. The first level of analysis involved categorization of data from the interviews, observations, and documents from each single case in each school. These data were analyzed according to the sources of evidence collected. When the data from these two schools were analyzed, the researcher provided a second level of analysis that was conducted through a cross-case analysis. This level of data analysis involved looking for patterns, themes, and relationships in the data from each single case in order to confirm or reject the theoretical proposition suggested by this researcher and to consider any other explanations.

#### Threats to Data Quality

In order for a case study to be valid, both internal validity and external validity need to be considered. Merriam (1998) noted that internal validity is concerned with the question of how the research findings match reality. In other words, internal validity asks whether researchers are monitoring or assessing what they assume they are monitoring or assessing. Merriam recommended six essential strategies to ensure internal validity: (a) triangulation or using multiple investigators, multiple sources of data, or multiple methods to confirm the findings; (b) member checks, which involve taking tentative interpretations back to the participants of the study and asking them if the findings are plausible; (c) long-term observation, which involves gathering data over a period of time to increase the validity of the results; (d) peer examination, or asking colleagues to comment on the findings; (e) participatory or collaborative modes of

research, which involve participants in all phases of the study; and (f) researcher's biases, or clarifying the researcher's assumptions and beliefs at the beginning of the study.

This researcher triangulated the information by including an array of information sources, for example, interviews, observations, and documents. The use of this technique allowed the researcher to view teachers perceptions of reading comprehension across the context of multiple data sources for congruence. Member checking, in which the participants were asked to check the plausibility of the findings, was also used. Finally, the researcher attempted to clarify her biases concerning this study.

Merriam (1998) noted that external validity is concerned with how the results of a study can be applied to other similar situations. In other words, external validity determines whether the results of a study are generalizable. According to Merriam, credibility is a more accurate term for qualitative studies such as case study research. External validity or credibility, according to Merriam, can be established by using the following strategies: (a) rich, thick description; (b) typicality or modal category; and (c) multisite design. Rich, thick description was used in this study to describe the data collection and data analysis procedures. The audio taped interviews that were transcribed by this researcher contained verbatim accounts of conversations with the participants. In addition, the researcher purposefully selected the instructional reading programs at these two elementary schools because they are typical of an instructional reading program in an urban setting. A multisite design was also chosen to allow the outcomes to be applicable to a range of similar situations.



Reliability refers to the extent to which the results of a study can be replicated (Merriam, 1998). In other words, a reliable study will provide the same results if repeated. Merriam noted that the following strategies can be used to ensure reliability for a study: (a) the researcher's position which involved explaining the assumptions and beliefs behind the study, the researcher's position about the group being studied, the criteria for selection of participants, and the social context from which the data are collected; (b) triangulation in terms of multiple methods of data collection and analysis; (c) audit trail which describes in great detail how data was collected, how groups or categories were determined, and how choices were made all through the study. For this study, the researcher triangulated these data and created an audit trail to enhance the reliability of these data.

#### Feasibility of the Study

This study was feasible for this researcher to conduct in large part because of the case study research design. This study took place at two elementary schools in a midwestern urban school district. These schools were selected in part because the researcher is employed as a teacher at one of the schools in the study and therefore had access to both. This study was also feasible in terms of the amount of time that it took to conduct the study which was approximately one marking period. This researcher did not have to spend money on this case study because the collection of data was done before and after school, and the researcher did not have to travel far to collect the data.

### Ethical Issues

As Stake (1994) observed, “Qualitative researchers are guests in the private spaces of the world. Their manners should be good and their code of ethics strict” (p. 244). For example, conducting an interview or an observation often carries both risks and benefits to the participants. One of these risks involves the problem of bias on the part of the researcher. As Hamel (1993) observed,

the case study has basically been faulted for the lack of representativeness ... and its lack of rigor in the collection, construction, and analysis of the empirical materials that give rise to this case study. This lack of rigor is linked to the problem of bias introduced by the subjectivity of the researcher (p.23)

According to the literature on qualitative research, this researcher bias can be addressed in several ways. One of the basic strategies concerns triangulation which involves utilizing multiple sources of evidence to substantiate the findings. Another strategy is member checking which involves taking data and speculative explanations back to the individuals from whom they were developed and asking them if the outcomes are credible. This case study used these strategies to enhance the validity and the reliability of the study as well as to create a more ethical study.

In addition, ethical protection for participants of the study and for the researcher was provided by Walden University through the Institutional Review Board (IRB) process (# 04-23-08-0283274). According to the IRB application required by Walden University, all research studies and projects using humans as subjects, or samples of data obtained from humans, directly or indirectly, with or without their consent, must be

approved or exempted in advance through the IRB process. This researcher also received approval from the superintendent of the school district to conduct this study, as well as from the principals at the two elementary schools involved in the study. Teachers were asked to sign consent forms before participating in the interviews and/or the observations. Their signatures on these forms were the only time these teachers' names were revealed in this study. Otherwise, pseudonyms were used for the schools and the participants. All data were kept in the researcher's home in a locked file cabinet, and the data was stored on a computer which was password protected. This data will be kept for five years. The researcher was the only person to approach potential participants to take part in this research study and was the only person to have access to the data.

Thus, this researcher took several steps to make sure that this study was conducted in an ethical manner. Because as Merriam (1998) pointed out,

No regulation can tell a researcher when the questioning of a respondent becomes coercive, when to intervene in abusive or illegal situations, or how to ensure that the study's findings will not be used to the detriment of those involved (p. 219)

However, the researcher still needs to be aware of the ethical issues that are prevalent during the research process in order to conduct an ethical study.

### Summary

Chapter 3 presented the methodology of this study which included a portrayal of the qualitative paradigm of this study and the case study research design as well as the rationale for the selection of each. In addition, this study included a detailed description of the setting and the participants of the study, the researcher's role, the data collection

instruments, the data collection plan, the data analysis plan, and an explanation of how the quality of the data will be protected. The feasibility of the study and ethical issues related to case study research were also discussed.

Chapter 4 will cover the following topics: an introduction, which will include the purpose of the study and a review of the data collection protocols; Level 1 data analysis involving category construction; Level 2 data analysis involving the development of a theoretical proposition or theory in relation to the research questions; a discussion of nonconforming or discrepant data; a discussion of evidence of data quality; and a summary of the findings.

## CHAPTER 4: RESULTS AND FINDINGS

### Introduction

The chapter is organized according to the following sections: an introduction, which will include the purpose of the study and a review of the data collection protocols; Level 1 data analysis involving category construction; Level 2 data analysis involving the development of a theoretical proposition or theory in relation to the research questions; a discussion of nonconforming or discrepant data; a discussion of evidence of data quality; and a summary of the findings.

### Purpose of the Study

The purpose of this multiple case study was to explore the instructional factors that contributed to improving reading achievement for students at the elementary school level in Grades 3 and 4 in a midwestern urban school district. The case in this study was defined as the instructional reading program at two elementary schools in the district. The program comprised the curriculum outcomes or standards, the instructional delivery of the curriculum, and the assessment of the outcomes or standards. This study also examined how teachers used specific early literacy indicators, known as Dynamic Indicators of Early Literacy Skills (DIBELS) to improve reading achievement for students and how teachers perceived the effectiveness of their instruction in improving student achievement in reading in relation to the implementation of DIBELS in their classrooms. In addition, this study explored teacher perceptions about the relationship that needs to exist between the pupil and the teacher in order to improve student achievement in reading. Finally, this study described other instructional and assessment

strategies used by teachers in addition to DIBELS to improve student achievement in reading.

### Data Organization

The data for this study were organized according to the source of evidence used. For this case study, interviews, observations, and documents were determined by the researcher as the three best sources of evidence. For the first source of evidence, the interview, two Grade 3 teachers and two Grade 4 teachers at each selected school site were interviewed, and data were organized in response to the eight questions that were asked of each participant. All interviews were audio recorded and transcribed by the researcher. The interview data were maintained on a cassette tape in a locked file cabinet in the researcher's home. The transcribed data were grouped into emerging themes based on patterns and relationships revealed in the responses. For the second source of evidence, descriptive data were collected from eight classroom observations, two from each grade level at each school, using an observation data collection form designed by the researcher. The observation data was organized according to patterns found in relation to six criteria recommended by Merriam (1998). For the third source of evidence, the documents were organized in relation to the following three types: instructional lesson plans, staff development activities, and assessments.

### Data Collection Protocols

#### *Interviews*

The interview data for this case study was generated from face-to-face individual interviews with eight classroom teachers to explore teacher perceptions about the

instructional factors that contribute to student achievement in reading. Two teachers from Grade 3 and two teachers from Grade 4 were interviewed by this researcher at each site. Eight questions were asked of each participant (see Appendix B).

The researcher collected interview data from School A, where she is currently employed, in April, 2008. Interviews at School B were conducted in May, 2008. However, because May is close to the end of the school year, many teachers were involved in field trips, school-wide sports events, the spring musical, and a school-wide picnic. Therefore, at School B, the researcher was only able to conduct the two Grade 3 interviews before the school year ended. The two Grade 4 interviews were conducted by phone, and the planned interviews for Grade 5 were not conducted. In order to have matching data from both schools, Grade 5 interview data were eliminated from this study. At each school, two Grade 3 and two Grade 4 interviews were conducted, for a total of four interviews. The IRB granted approval for this adjustment in the interview protocols.

At School A, all four interviews took place at that school in the classrooms of the participating teachers. At School B, three interviews were conducted at the school in the classrooms of the participating teachers. One interview for School B was done by telephone. Each interview took 45 minutes to conduct. The participants responded with interest and some enthusiasm to most of the questions.

### *Observations*

The teaching and learning activities during this instructional reading period were recorded by the researcher in the form of field notes on the observation data collection form (see Appendix E). The specific criteria used to guide this observation were based on

Merriam's (1998) recommendations for observations in classroom settings and were as follows: the physical environment or classroom setting, diversity of the classroom, gender makeup of the classroom, content of the reading lesson, instructional strategies used during the lesson, verbal student responses during the lesson, nonverbal student responses during the lesson, and questions asked during the lesson.

During the last part of April, the researcher was able to collect all of the observation data from School A where she is currently employed. However, during the month of May, when the researcher tried to collect the observation data from School B, she also faced similar challenges in terms of scheduling the observations. Because the month of May is close to the end of the school year, teachers were involved in field trips, school wide sports events, the spring musical, and a school wide picnic. Therefore, the researcher was able to conduct only one observation for Grade 3 and one observation for Grade 4. No observations were scheduled for Grade 5 as originally planned. In order to have matching data from both schools, Grade 5 observation data was eliminated from this study. The number of observations was reduced to one observation at Grade 3 and one observation at Grade 4 for each school site for a total of 4 observations from both schools. The Institutional Review Board (IRB) granted approval for this adjustment in the observation protocol.

Each observation lasted approximately 45 minutes which was the amount of time provided for the instructional reading lesson at each school each day. The observations were set up to accommodate each teacher's schedule. The students were aware of the researcher's presence in their classrooms because the teachers had indicated that an



observer would be present. The researcher assumed the role of an observer-participant which, according to Merriam (1998) means that the researcher's activities were known to the group; participation in the group was secondary to the role of information gatherer. Using this method, as Merriam noted, the researcher may have access to many people and a wide range of information, but the level of the information revealed is controlled by the group members being investigated.

### *Documents*

The researcher collected three types of documents for this case study: (a) instructional lesson plans, (b) staff development handouts related to reading instruction, and (c) assessment data related to student achievement in reading. The instructional lesson plans used during the instructional reading period included the lesson plan itself and any materials related to reading instruction, and these documents were collected from the teacher by the researcher during the observations. Staff development activities related to training in DIBELS and to reading instruction in general were collected by the researcher from the principal. The assessment data included group data on unit assessments as well as grade level data on statewide and district assessments in reading. The assessment data were collected by the researcher from the classroom teachers and the principal.

## Level 1 Data Analysis: Category Construction

### *Case 1: Instructional Reading Program for School A*

#### Analysis of Interview Responses

Interview Question 1 asked, “What instructional strategies do you use in your classroom that you believe improve student achievement in reading?” Teacher responses to this question were more similar than different. For example, several teachers mentioned guided reading and choral reading as strategies as well as reading centers and leveled books. However, one teacher stated that “teacher modeling was an excellent strategy for bilingual students,” and a novice teacher stated, “Teachers must stay close to the strategies recommended by the basal readers from the *Open Court* reading materials because it is the designated reading curriculum for that school.”

Interview Question 2 asked, “What do you think about the effectiveness of the reading standards for students at your grade level?” The teachers at School A felt that the state standards were above grade level expectations, even though the expectations were set by the experts in reading. However, one teacher stated, “When students are labeled, a lot of stress is placed on them.” To this teacher, assigning a grade level to students is like being labeled.

Interview Question 3 asked, “How do you use DIBELS to improve achievement in reading for students in your classroom?” The interview responses indicated that there were definite similarities in how teachers at School A used the early literacy indicators known as DIBELS to improve achievement in reading for students in their classrooms. For example, several teachers noted that they used DIBELS as a way to monitor student

growth in the area of fluency. The instructions from the district about how to use DIBELS were generally interpreted in the same way by all of the participants at this school. However, one teacher stated, "DIBELS is used as a resource in addition to other *Open Court* assessments."

Interview Question 4 asked, "How effective do you believe DIBELS is in improving achievement in reading for students in your classroom?" One of the teachers at School A stated, "DIBELS was effective because it allowed them to monitor growth in fluency." The teachers felt that DIBELS is a good method for knowing how much progress in reading has been made, and these indicators provide good data to chart improvement on individual students. However, one teacher felt that the use of DIBELS was not very effective in her classroom, especially with the ability level of some of the students she works with; this teacher would have liked some of the students to be able to decode the words better and be able to achieve a good DIBELS score as well.

Interview Question 5 asked, "What are some of the challenges that you face as a classroom teacher in implementing DIBELS?" The teachers at School A expressed different ideas about the challenges that they faced as classroom teachers in implementing these early literacy indicators. For example, one of these challenges may involve a student who demonstrates reading skills below the third grade level but who still manages to achieve proficiency on the state test (ISAT) which is written at a third grade level. In addition, a student who is nervous and shy can be a challenge because that student may be afraid to respond for fear of being reprimanded. Also, students who have difficulty with phonemic awareness can be a challenge because they are unable to

produce the letter sounds correctly. Several teachers also felt that implementation of DIBELS in the classroom can be challenging due to the large number of students and behavior issues in the classroom.

Interview Question 6 asked, “What is your belief about the relationship that needs to exist between you and the student in order to to improve student achievement in reading?” The teachers at School A felt that a good relationship needs to exist between the teacher and the student in order to to improve student achievement in reading. Two of the teachers described the strengths and weaknesses of their students because they believed that knowing this can help them better prepare their lesson plans for their students. One of the teachers stated, “It is important to work with self-esteem issues because students who are struggling often have low self-esteem and need a positive classroom environment in order to improve their achievement in reading”.

Interview Question 7 asked, “In addition to DIBELS, what other instructional and assessment strategies do you use in your classroom to improve student achievement in reading?” The teachers described instructional and assessment strategies that they used in their classrooms to improve student achievement in reading. However, there were more differences than similarities for teachers at School A in the use of these instructional and assessment strategies. One of the similarities was the use of unit assessments. A unit assessment is a tool that the teacher uses to monitor student progress and to detect student strengths and weaknesses. These unit assessments help determine the students’ ability and growing bank of knowledge as well as their ability to retain concepts over a limited period of time, generally from six to eight weeks per unit. Individual teachers also used

weekly lessons that included fluency assessments, team work, story assessments, vocabulary, independent and silent reading, guided reading, reading centers, and the use of a Chapter 1 reading teacher as instructional support. Some of the assessment strategies were end-of-the-chapter and unit assessments, running records, and comprehension assessments.

Interview Question 8 asked, “What reteach lessons do you use in your classroom for students who need extra support for improving their reading skills?” More differences than similarities were cited by these teachers at School A in terms of how they retaught concepts to struggling learners. Some differences were the use of repetition discussions in very small groups, after-school tutoring, peer coaching, pairing students with an advanced reader, and guided reading. However, most of the interviewed teachers at this school used components from the *SRA Open Court* reading materials, CDs, and graphic organizers to reteach critical concepts to students who needed more work in reading.

#### Analysis of Observation Data

The observation data for teachers in Grades 3 and 4 at School A was analyzed according to the following criteria: (a) the physical environment or classroom setting, (b) diversity of the classroom, (c) gender makeup of the classroom, (d) content of the reading lesson, (e) instructional strategies used during the lesson, (f) verbal student responses during the lesson, (g) non-verbal responses during the lesson, and (h) questions asked during the lesson. The field notes for these observations can be found in the case study database in Appendix E.

### *Physical Environment or Classroom Setting*

The physical layout of all four classrooms were developmentally appropriate for Grade 3 and 4 students and was determined by guidelines suggested by the *SRA Open Court* reading materials. Therefore, the classrooms were remarkably similar to each other in their physical setting. In each classroom, there were rows of desks and chairs situated near the front of the room, near the white dry-erase board and the concept/question board. Sound/spelling cards lined the wall above the board so that these students could easily see the cards. Depending on the number of students, teachers had arranged the student desks in single rows, seating three to five students in a row. Some rows were in the shape of a U and an I or were at an angle in order to accommodate different activities and to ensure that the *SRA Open Court Workshop* activities progressed smoothly and effectively. This format was also used because students engaged in reading and writing activities both independently and collaboratively. This type of classroom setup provided the space and materials for the following: (a) a reading area supplied with books and magazines: (b) a writing and publishing area supplied with paper, pencils, rulers, colored markers, crayons, tape, string, and scissors: and (c) a listening area that included a tape recorder (or CD player) and audiocassettes (or CDs) of stories, poems, and songs for students to hear. These arrangements provided for easy movement of the students. A large open space on the floor provided whole class and individual activities and facilitated easy access for the teacher as well as organized the classroom into manageable sections. These arrangements allowed the placement of those students with visual, auditory, and other

impairments in advantageous positions near the front of the room. The students were also grouped according to ability.

At School A, the principal also inspected each classroom, observing the presence of sound/spelling cards, the seating arrangement, and the use of the *SRA Open Court Workshop*. During these observations, the principal used a checklist titled *The Open Court Reading Start of Year Observation Checklist*. The observations by the principal reinforced the similarities of the classroom environments at School A.

#### *Diversity of the Classroom*

Diversity in the classroom at School A referred to the number of students who were identified as African American, Latino American, and European American, according to the enrollment data. No Asian American or Native American students were identified at School A. Table 2 indicates the following findings.

Table 2

#### *Diversity of the Classroom School A*

Classes	Latino American	African American	European American
Grade 3	18	0	0
Grade 3	15	0	0
Grade 4	12	9	0
Grade 4	23	0	0

*Note:* Diversity is from the district's School Report Card 2007

Because of this diversity at School A, additional instructional support in learning the English language was provided for students and their teachers. The English Language

Development (ELD) Guide was provided for teachers to use with students who needed language help. This guide provides assistance with word knowledge, vocabulary, comprehension skills such as classifying and categorizing, vocabulary strategies, grammar, usage, and mechanics. This ELD guide is also aligned with the *Open Court* reading materials.

#### *Gender of the Classroom*

At School A, the majority of classrooms were gender balanced as Table 3 below indicates.

Table 3

#### *Gender Makeup of the Classroom School A*

Classes	Female	Male	Total
Grade 3	11	7	18
Grade 3	6	9	15
Grade 4	10	11	21
Grade 4	13	10	23

*Note:* Gender Makeup is from the district's School Report Card 2007

#### *Content of the Reading Lesson*

The content of the reading lessons in all four classrooms closely follows the *SRA Open Court* reading materials which have been mandated by the school district for all elementary schools. This researcher observed instructional reading lessons at School A in the Spring of 2008. In Grade 3, the instructional reading lessons focused on comprehension skills such as summarizing which prompted students to keep track of what they were reading and to focus on understanding important information. Making



connections were another reading skill that required students to activate prior knowledge and connect what they know or have experienced to what they are reading. Visualizing required students to mentally picture the events or characters in the story, resulting in a more vivid and imaginative understanding of the story. The comprehension skills of classifying and categorizing required students to put similar ideas together in order to understand new information. In Grade 4, the instructional reading lessons emphasized comprehension skills such as monitoring and clarifying which helped students to understand the meanings of words and difficult ideas or passages. The instructional skill of asking questions also helped the students check their understanding of the text. The comprehension skill of author's purpose required students to consider if the intent of a selection was to entertain, to persuade, or to inform. Knowing why a piece is written helped students develop some ideas about what the author was going to say.

This researcher also observed that the *SRA Open Court* reading materials and the state standards are closely aligned for each grade level. For example, the state standards at Grade 3 and at Grade 4 require that students will be able to apply word analysis and vocabulary skills to comprehend reading selections and to use reading strategies to improve their comprehension and fluency. Other standards require that students will be able to comprehend a broad range of reading materials and to understand how literary elements and techniques are used to convey meaning. The state standards for these grade levels also require that students will be able to acquire information, concepts, and ideas to communicate in a variety of formats. According to the state standards, students must also be able to locate, organize, and use information from various sources to answer questions,

solve problems, and communicate ideas. Thus, the standards play a key role in improving student reading achievement.

### *Instructional Strategies Used During the Lesson*

Several of the instructional strategies used by the Grade 3 and Grade 4 teachers to deliver the reading lessons are recommended by the *SRA Open Court* reading materials. At School A, each teacher is required to teach specific reading comprehension skills in conjunction with the reading lesson. Reading comprehension skills such as clarifying, summarizing, visualizing, asking questions, making connections, monitoring and clarifying, and predicting are modeled and reviewed in the first reading of the literature. Comprehension skills, including sequencing, drawing conclusions, classifying and categorizing, author's point of view, and comprehension are modeled, practiced, and reviewed in the second reading of the literature. The instructional strategy of direct and explicit instruction provides students with the comprehensive development of these skills that builds life-long confidence in reading. Teachers at School A also used the instructional strategies of inquiry and investigation to teach their students how to ask questions and find the answers to their questions. Using the instructional strategy of inquiry, students were able to apply their reading, comprehension, and language arts skills in an investigation. When students asked questions relating to the story, they were able to gain a deeper understanding of issues related to the story. Using the instructional strategy of read alouds, some of the teachers at School A started their reading lesson by having students listen to a story on tape from the reading selection. Teachers also explained unfamiliar vocabulary words. In each classroom, the bilingual teacher

explained unfamiliar vocabulary words in both Spanish and English. Teachers also tried to engage their students in conversations about the text. They often asked their students questions about the stories and encouraged retellings, and they related reading texts directly to the lives of their students.

Even though the *SRA Open Court* reading materials directed the type of instructional strategies that the teachers used, this researcher did observe that some teachers chose to use other instructional strategies that were not prescribed. For example, in relationship to the teaching of word knowledge or story words, one Grade 3 teacher wrote the word on the board to introduce the word in the story and then told the students how to pronounce any new words in the story. Another difference in the instructional delivery of the content of these lessons was that once the students had read the story, one Grade 4 teacher asked students to share the difficult words they had found in the story and how they had figured out the pronunciation. These students were also invited to retell the story in their own words, describing what they liked about the story or what they found interesting or surprising.

Generally, however, the instructional strategies used most often during the reading lessons in each classroom involved modeling and inquiry. Teachers also used a variety of instructional strategies to prepare students to read the text. These strategies included activating prior knowledge, browsing the text, and deciding what to expect from the text. Using these strategies, teachers asked students to share their expectations about the text they were about to read, and as a result, students became more engaged in their reading and read with more care and comprehension. All of the teachers used modeling

and thinking aloud strategies which are some of the most effective instructional strategies to help students use the strategies that good readers use. Modeling these behaviors and encouraging students to think aloud as they attempted to understand text demonstrated to other students in the class how these behaviors could be put into practice.

### *Verbal Student Responses during the Lesson*

The content of the conversations between the teacher and the students during the instructional reading lessons in each classroom at School A provided clear examples of the importance of explicit or direct instruction in teaching specific reading skills. For example, in one of the Grade 3 classrooms, direct instruction in vocabulary produced an interesting observation. Stroking was one of the vocabulary words that the teacher presented in the lesson. The student had the ability to access the meaning of the word efficiently by thinking about the word and what he already knew about stroking a dog, and he added new knowledge by stroking his head as an example of his prior knowledge about the word. Understanding the meaning of this word through direct vocabulary instruction from the teacher helped this student to understand the story. In the second Grade 3 classroom, students were also working on specific vocabulary words, and in response to a specific question from the teacher about the word “ideal”, one student stated that an “ideal” was something that was great or perfect. The story was about the carving of a totem pole of animals, and the student explained his understanding of the word “ideal” as it related to the ideal way to carve a totem pole. The specific instructional strategy used by the teacher involved using context clues, with repeated exposure to

words through reading and listening. Again, direct instruction in relation to context clues allowed the student to gain a more complete understanding of the text. In another Grade 4 classroom, the teacher used direct instruction in relation to activating prior knowledge in order to help students understand what they already knew about the reading selection prior to reading it. For example, one student described what she knew about American history before reading the story “Early America.” In other examples of the use of direct instruction, the first Grade 4 teacher provided direct instruction in relation to the theme of *Communication* while the second Grade 4 teacher provided direct instruction in relation to the theme of *A Changing America*. The instructional strategy used by the first Grade 4 teacher was monitoring and clarifying which helped students understand the meaning of words and difficult ideas or passages. The second Grade 4 teacher invited students to discuss similar stories they had read about colonial life. The vocabulary strategy used in this lesson involved using context clues or asking students how a word was used in a sentence to provide some clue to its meaning. Once again, the teacher used direct instruction to present the vocabulary words before students read the selection. Since vocabulary is closely connected to comprehension, understanding the vocabulary words enabled students to more effectively comprehend information in the selection as it was read and discussed.

#### *Nonverbal Responses during the Lesson*

This researcher observed several different types of nonverbal responses during the instructional reading lesson in each of the classrooms at School A that indicated how receptive students were to explicit reading instruction by the teacher. For example, some

of the students were slumped down in their seats hoping that the teacher would not see them or call on them because they were not sure that they had the right answers. Some students had their eyes wide open and gave shy smiles when the teacher called on them. Some students looked up at the ceiling when called on to respond because they also were not sure that they had the right answer. On the other hand, other students made 'oooing' sounds when everyone knew the answer or when students wanted to share information in relation to their prior knowledge about the literature. The responses showed that a majority of the students were very engaged in the lesson. Some of the students were so enthused that they could not wait to give their answer, blurting out the answers and waving their hands while sitting on the edge of their seats. The nonverbal responses showed that the student understood the lesson that was modeled and directly taught to them.

#### *Questions Asked during the Lesson*

The researcher noticed that questions asked by students during the lesson were generally encouraged by the teachers at this school. The questions that students asked also indicated their level of engagement in the lesson. For example, the concept/question board was used by all four teachers to encourage students to present information about what they learned during the lesson or to ask any questions. All students participated by placing a question on the concept/question board. Some of the classes had as many as six students who asked questions about the literature that was read and discussed. For those students who did not respond verbally, the concept/question board served as a place

where they could express themselves. In addition, the concept/question board let students know that questions were not viewed as problems but as a way of learning.

### Analysis of Documents

The analysis of documents consisted of a content analysis (Yin, 2003) that was used for the different types of documents, including the lesson plans, staff development documents, and student assessment documents, including state assessments and classroom assessments. Each document was reviewed in relation to the purpose of the document, the organization of the document, and the content of the document. For example, the lesson plan format for the district was organized according to a five day format, meaning that five days were used to teach one lesson. The lessons were presented in a daily lesson format that could be completed in about a week. The staff development documents were related to such topics as DIBELS benchmark training, ISAT/IMAGE testing, DIBELS data review and implications for instructional focus and DIBELS benchmark tests. The student assessment documents consisted of statewide assessments that were used in this school district, including the ISAT and the IMAGE. Since the 2007-08 school year, the ISAT is the only test administered to monolingual and bilingual students throughout the district. The classroom assessments consisted of unit assessments. The unit assessment was an integral part of a complete assessment program that aligned with the instruction for the *Open Court* reading materials.

### *Lesson Plans*

Each *SRA/Open Court Student Anthology* lesson is intended to take three to five days. This district uses the five day plan format. The Day 1 format consists of getting

acquainted, reading and presenting background knowledge about the literature selection, discussion, handing off which is a method of turning over to the student the primary responsibility for controlling discussion, use of the concept/question board, and writing. Day 2 deals with reading, discussion, writing, and drafting. Day 3 consists of reading, writing, and providing differentiated instruction through the use of *Workshop* activities, use of the reading area, and the use of the concept/question board. Day 4 lessons deal with reading, the writer's notebook, use of the listening area, *Workshop* activities, and the use of a concept/question board. Day 5 deals with reading, writing, proofreading, sentence lifting, the use of the concept/question board, and *Workshop* activities.

The lesson plan for the first Grade 3 teacher dealt with preparing to read in relation to the following skills: homographs, the suffixes –tion and –sion, /k/ spelled *c*, /θ/ and related words and sentences. Another component in the lesson plan was reading and responding which consisted of building background, preview and preparation, selection of vocabulary words, and reading recommendations. A third component was inquiry; this concept involved investigating concepts beyond the text. The last component of the lesson plan was language arts which included word analysis, spelling with an emphasis on the /θ/ sound, writing process strategies, narrative writing, realistic stories, and English language conventions such as mechanics, capitalization, and underlining. Materials used to teach this lesson included the student anthology, a concept/question board, sound/spelling cards, routine cards, reading transparencies, a spelling and



vocabulary skills workbook, a comprehension and language arts skills workbook, a writing and creativity center, and an inquiry journal.

The inquiry journal deals with small cooperative group activities, which provide students with a systematic structure for investigation that is driven by their own interests and conjectures. The purpose of these inquiry journals is to help students deepen their comprehension by enabling them to apply the skills they are learning to texts and activities of their own choosing. Also, students are required to synthesize and organize what they are learning in order to present their findings to their classmates. Inquiry units are based on universal topics of interest such as friendship, perseverance, and courage and research units that provide students with a solid base of information from which they can develop their own inquiry and research. At the end of each selection, students record information of their investigations which is the written portion of their projects. Ample time is arranged for the formal presentations, spreading them out over several days.

The second Grade 3 teacher used a lesson plan consisting of an emphasis on preparing to read which included vocabulary dealing with oral language and grammar, vocabulary transparencies, words with R-controlled vowels, phonics skills, reading practice worksheets with R-controlled vowels, and a decodable book. The second phase of the lesson included vocabulary words and a related practice book and worksheet. A third component of the lesson included an emphasis on oral language; students were asked to read the selection out loud and to build comprehension with self-monitoring as well as making, confirming, and revising predictions. Another component of the lesson plan included an emphasis on critical thinking skills by distinguishing fiction and

nonfiction as well as daily writing activities through which students reflected on the adventure story in their literature journals. The last component of the lesson plan on literary analysis was related to the setting of the story. Documents used in this lesson were transparencies that included 58 words with R-controlled vowels, an independent practice worksheet, a decodable book, a student anthology, and related worksheets.

The first Grade 4 teacher's lesson plan involved word knowledge, the spelling suffix -ture, words with the suffix -able or -ible, homophones, a review, and related words and sentences. The reading and responding section of the lesson plan focused on building background, preview and preparation, the vocabulary selection, reading recommendations, and the comprehension strategies of monitoring and clarifying. The inquiry section included investigating concepts beyond the text. The language arts section was related to word analysis, writing process strategies, and English language conventions. Materials used to complete these lessons included routine cards, a student anthology, an inquiry journal, reading transparencies, a teacher observation log, a unit assessment, comprehension and language arts skills, language arts transparencies, spelling and vocabulary skills, and a student writing and research center.

The second Grade 4 teacher used a lesson plan that consisted of preparing students to read which involved the use of the inquiry journal and routine cards. With the use of these materials, the teacher presented an overview of the unit. This overview included previewing the unit, a read aloud, word knowledge including the names of nationalities, /j/ spelled ge, gi, or gy, the prefixes dis- and un-, rhyming words, the development of oral language, and related words and sentences. Student reading and

responding in the classroom was conducted with the use of the following materials: a student anthology, reading transparencies, a teacher observation log, an inquiry journal, a reading comprehension and language arts skills workbook, a unit assessment, and routine cards. The teacher discussed such topics as building background, preview and preparation, vocabulary selection, comprehension skills such as summarizing, asking questions, monitoring and adjusting reading speed, and reading recommendations. The inquiry section included investigating concepts beyond the text and a concept/question board. Materials used for this discussion were the student anthology and the inquiry journal. The language arts component included word analysis, spelling rhyming words, and vocabulary. Writing process strategies involved an emphasis on poetry and included writing a quatrain, prewriting, and end rhymes. The English language conventions emphasized grammar and usage and identifying and using parts of speech. Documents used for this segment were comprehension language arts skills, language arts transparencies, a student anthology, spelling and vocabulary skills, a writing workbook, the student writing and research center, and a unit assessment.

#### *Staff Development Documents*

At School A, staff development documents were related to such topics as DIBELS benchmark training, ISAT/IMAGE testing, DIBELS data review and implications for instructional focus, DIBELS benchmark tests, thinking processes and graphic organizers, reading comprehension skills and related instructional strategies, and the use of grade level teams to improve student achievement in reading.

The staff development documents on DIBELS Benchmark training included information about how to administer the DIBELS Oral Reading Fluency (DORF) which is a standardized, individually administered test of accuracy and fluency with connected text. The purpose of this staff development was to train the staff on how often the DORF should be given and how to monitor the progress of each student.

Staff development documents related to ISAT/IMAGE testing was provided to inform teachers about the 2008 revisions when administering these tests. This staff development provided direction for teachers who manage the Illinois Standards Achievement Tests (ISAT) and the Illinois Measure of Annual Growth in English (IMAGE). The documents presented in this workshop included information related to mandated procedures and activities as well as procedures and activities that were not encouraged, and recommended instructional practices.

Documents related to DIBELS data review and implications for instructional focus were presented to staff members at School A, and the importance of having updated data was also discussed. The instructional and assessment strategies to help student progress in fluency and reading comprehension were also discussed.

The staff development workshop about thinking processes and graphic organizers was concerned with flow maps, reading comprehension, metacognition, prior knowledge, word meaning, inference, and text structure. The documents related to this workshop provided staff members with an introduction to concept development dealing with reading comprehension. Following that was a presentation of materials related to pattern development which entailed narrative and expository writing. Skill development was also

discussed with a focus on thinking maps and graphic organizers that focused on higher level thinking skills. Documents related to reading comprehension strategies were presented which included vocabulary, metacognition, background knowledge, text structure and organization, and making inferences.

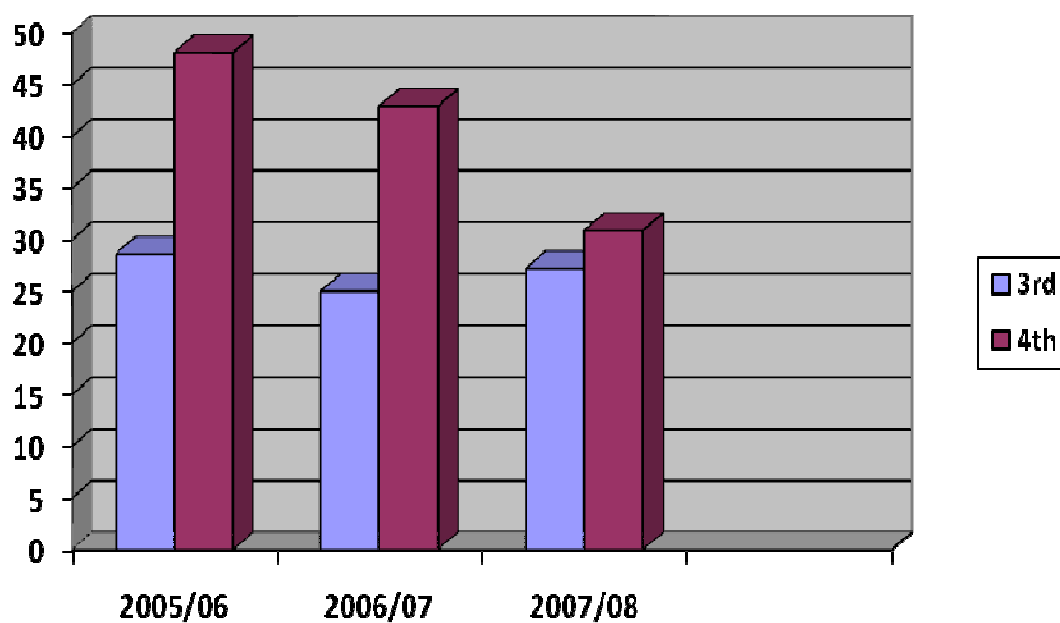
Another staff development workshop about reading comprehension was provided because School A was identified as a Title 1 school improvement site; 37% of Grade 3 students and 87% of Grade 5 students unsuccessful met the state reading standards. The need for this staff development was to improve student reading achievement and higher level thinking skills which is a high priority goal at School A. Training was provided to classroom teachers, special education teachers, Title 1 teachers, and reading improvement staff in relation to the *Steps to Guided Reading* program. The training included the presentation of documents that showed how to align lessons to the state standards and how to use higher level questioning strategies.

Grade level teams were also put in place to monitor progress. The purpose of the grade level teams was to provide grade level data review, analysis, and intervention planning. The team's job was to define tier cut-off scores and review assessment data, group students according to needs, review interventions and match the interventions to students' needs, review resources, plan interventions, and develop a plan for progress monitoring and support of grade level implementation of curriculum. These professional development in-services and related documents were presented to educate the staff about how important it is to keep data and monitor the progress of student growth in reading fluency and reading comprehension.

## *Student Assessment Documents*

### State Assessments

The statewide assessments that are used in this school district are the ISAT and the IMAGE. For the 2007-2008 school year, the assessments included no IMAGE data; only the ISAT was administered to all students. These students were both monolingual and bilingual. The 2007-2008 school year is the first time that Limited English Proficient (LEP) students, who would have taken the IMAGE in the past, took the ISAT.



*Figure 1: School A classroom results for ISAT/IMAGE.*

Figure 1 shows the percentage of students in Grades 3 and 4 who met or exceeded the state standards in reading for School A. In 2005-06, 28.6% of the students in Grade 3 met or exceeded the state standards in reading. In 2006-07, 25.0% of the students in Grade 3 met or exceeded the state standards in reading, and in 2007-08, 27.2% of the students in

Grade 3 met or exceeded the state standards in reading. In 2005-06, 48.1% of the Grade 4 students met or exceeded the state standards in reading. In 2006-07, 42.9% of the students in Grade 4 met or exceeded the state standards in reading. In 2007-08, 30.9% of the students in Grade 4 met or exceeded the state standards in reading.

These data indicates that at Grade 3, student achievement in reading declined slightly in 2006-07. The concern for students at Grade 3 is that less than 30% of the students are meeting or exceeding the state standards in reading. However, the data also indicated an increase in student achievement in reading for students in Grade 4 in comparison to Grade 3. A concern is that students in Grade 4 have demonstrated a significant decline in student achievement in reading over this three-year period.

#### Classroom Assessments

The unit assessments are an integral part of a complete assessment program that aligns with the instruction for the *SRA Open Court* reading materials. The individual tests found in the unit assessments provide multiple measures to assess student understanding. Unit assessments are also used for both Grades 3 and 4 to test students on their understanding about the unit theme, comprehension, spelling, vocabulary, grammar, usage, mechanics, writer's craft, oral fluency, listening skills, and writing skills. Continuous assessment enables teachers to gauge the progress of their students so that no student misses needed instruction. Unit assessments reflect the instructional content and reading selections of each unit. The various measures within a unit assessment allow the teacher to see how well students have learned the skills that have recently been taught and to provide any additional instructional that is necessary. The assessment components

related to the *SRA Open Court* reading materials are designed to help teachers make appropriate instructional decisions. The variety of assessments is intended to be used continuously and formatively. Each teacher grades the students individually on the lesson assessment and the end of the unit assessment. These assessments are in the form of an individual booklet for each student that is graded by each teacher. Directions on how to complete the assessments are modeled and explained by the teacher. Thus, the unit assessments are an integral part of a complete assessment program that aligns with the instruction for the *SRA Open Court* reading materials.

Online assessments related to the *SRA Open Court* reading materials help teachers differentiate classroom instruction based on students' scores from the weekly and end-of-unit assessments. They provide exercises best suited to meet the needs of students who need quick alternative activities to strengthen or extend their skills. School A also provides an after-school tutoring program to help those students who do not make a satisfactory grade on these assessments. Students are graded with scores from 0 to 100%. Students scoring below 60% are monitored and provided with help to improve their reading skills.

All of the teachers in Grades 3 and 4 worked with some students who were not able to master the weekly and end-of-unit assessments. Classroom assessment data showed that not all students performed well on these assessments. For example, in one Grade 3 classroom, six students were not able to master an assessment for unit 5. These students did not master the comprehension, vocabulary, and grammar portions of the assessment. The mastery levels that were required were as follows: comprehension: 80%,



vocabulary: 80%, and grammar, usage, and mechanics: 83%. Some of these students achieved scores in the 30% to 40% range. One Grade 4 teacher had seven students who did not pass the unit assessment. Students who did not achieve a passing score were placed in an after-school tutoring program. These students were tutored twice a week for 1 hour and 30 minutes for 2 weeks. At the end of the tutoring program, the students were given the unit assessment again. This was a requirement by the building principal.

Individual lesson assessments that assess the skills taught in each lesson immediately after instruction were also reviewed by this researcher. There were six units in this instructional reading program. The assessments determine the students' ability to retain concepts over a limited period of time, from 6 to 8 weeks per unit. The assessment formats included short answer, multiple choice, dictation, teacher directed student performance, teacher directed student response, on demand writing performance, and teacher evaluation of student written work for the unit. The researcher noted that some of the students who took the formal assessment did not achieve mastery with a passing score of 60-100% on the individual assessment. Each teacher administered the weekly and unit assessment to all students and for the students who were below level, online assessments, and afterschool tutoring and differentiated instructional activities was utilized. Some of the students demonstrated below level and borderline progress on the weekly and the unit assessment. However, a majority of the students made progress in reading at grade level. For example, in one Grade 3 classroom, five of the students did not achieve mastery on the unit assessment on comprehension, vocabulary, and grammar, and oral fluency. In

one Grade 4 classroom, six students did not achieve mastery on the unit assessment on oral fluency, comprehension, vocabulary, and grammar.

DIBELS was used to monitor student progress in reading fluency. This assessment was given three times during the school year: Fall, Winter, and Spring. The benchmark goals were 110 words per minute for Grade 3 students, and 118 words for Grade 4 students. DORF is a standardized assessment designed to recognize students who might require extra instructional reinforcement and to monitor student progress toward instructional goals. The passages were adjusted for the specific reading goals for each grade level. DIBELS-Oral Reading Fluency results are stored in AIMSWEB which is a web site for the district. On file in that site for each student on this test are the number of correct responses, the number of errors, accuracy, performance summary, and potential instructional action. The results showed how students were progressing when all results are recorded. The benchmark data indicates the strategic or additional interventions and intensive or substantial interventions that are needed at each grade level. Interventions are provided for those students who need them. The interventions were implemented during workshop days in small groups, according to the student reading level. These DIBELS data showed that a majority of the students for these two grade levels made tremendous progress in reading. DIBELS is given to all students three times a school year. Students, who score below 25% on DIBELS, are monitored every two weeks during the school year. In addition, they are still tested three times a year with the other students. Reading specialists give the DIBELS to all students three times during the school year. For Grade 3 students, there were eight students monitored weekly by the classroom teachers. Five

Grade 4 students were monitored weekly. Ten of the students made progress above the number of words required for their grade level. All students were tested as required by the district, and for those 13 students who did not read at the required grade level, they were monitored twice a month by the classroom teacher.

In summary, these lesson plans, staff development documents, and student assessment documents are important to an understanding of the instructional reading program at School A because they reveal critical information about how teachers determine which instructional strategies to use in order to improve student achievement. For example, for those students not working at grade level, specific instructional interventions were provided for those students so that they could make progress. The DIBELS results reported in AIMSWEB indicated an individual student's level of performance as well as what additional and/or substantial interventions are needed. This was when the grade level teams worked together to plan individual interventions for those students performing below grade level. With these instructional interventions in place, student progress in reading began to improve.

#### *Case 2: Instructional Reading Program for School B*

##### *Analysis of Interview Responses*

Interview Question 1 asked, "What instructional strategies do you use in your classroom that you believe improve student achievement in reading?" The teachers responses were more similar than different. Guided reading, independent reading, and leveled reading books were used by several teachers. One teacher mentioned that, "It was a pleasure having the use of the services from the Chapter One teacher, the LD resources,

and the Response to Intervention (RTI) teacher.” Another teacher stated, “It was awesome to use the vocabulary preview and response journals which included a written record of daily events or responses.”

Interview Question 2 asked, “What do you think about the effectiveness of the reading standards for students at your grade level?” The four teachers at School B felt that the reading standards for students at their grade level were necessary because they are held accountable for teaching these standards which are set by educational experts. However, one teacher stated, “It is not a sure fact if the grade level reading standards play a large part in reading effectiveness”, and another teacher said, “The current standards were a little too vague to be effective.”

Interview Question 3 asked, “How do you use DIBELS to improve achievement in reading for students in your classroom?” Many different responses were revealed from the teachers. Some teachers used DIBELS to chart improvement on individual students, to drive instruction in the area of fluency, and to improve reading instruction and achievement. Some teachers also used DIBELS to place students in a particular reading group, to determine the independent reading levels of their students, and to check their fluency. All of these teachers seemed to agree that the main use of DIBELS was to serve as a monitoring and benchmarking tool to measure student progress.

Interview Question 4 asked, “How effective do you believe DIBELS is in improving achievement in reading for students in your classroom?” The teachers generally felt that the use of DIBELS was effective in improving reading achievement for students in their classrooms. Some teachers felt that the use of DIBELS was effective

because DIBELS monitors data in order to keep track of how fluent the students are in reading and to chart improvement for individual students. One of the teachers responded, “DIBELS could be used to diagnose students in fluency and retelling skills, to place students in reading groups, to determine if students are reading at grade level or below, and how much progress has been made.”

Interview Question 5 asked, “What are some of the challenges that you face as a classroom teacher in implementing DIBELS?” The teacher responses at School B were quite different from one another. One teacher stated, “It was a task getting the testing done when the students would not sit quietly while I was dealing with an individual student”. Another teacher cited, “It is a challenge to administer DIBELS on your own, without any help”. Only one teacher responded, “There are no challenges involved in implementing DIBELS.”

Interview Question 6 asked, “What is your belief about the relationship that needs to exist between you and the student in order to improve student achievement?” At School B, most of these teachers agreed that the student must feel liked by the teacher, and the teacher must convey “positiveness” to every student. However, one teacher argued that students need to know that their teacher wants them to improve in reading. Another teacher believed that respect for the teacher is the most important part of this relationship. Another teacher stated that the teacher must first act as a diagnostician to pinpoint the students’ strengths and areas of concern in reading.

Interview Question 7 asked, “In addition to DIBELS, what other instructional and assessment strategies do you use in your classroom to improve student achievement in

reading?” The majority of the teachers at School B used other instructional and assessment strategies to improve student achievement in reading. These instructional strategies included guided reading, independent reading, and vocabulary work. Assessment strategies included comprehension assessment, end of the chapter and unit tests, and running records tests. Individual teachers also responded with other instructional strategies including modeling, journal responses using comprehension strategies, and construction of mental images to represent text. One teacher stated, “It is a good thing to use the quarterly benchmark tests as an assessment strategy.”

Interview Question 8 asked, “What reteach lessons do you use in your classroom for students who need extra support for improving their reading skills?” The response to the use of reteaching lessons revealed more differences in approach than similarities at School B. One teacher described an SRA intervention, and another teacher responded that 3 support personnel come into her classroom 3 days a week. Another teacher described the use of multiple readings in leveled books that involved understanding such concepts as the length of the reading passage, the layout, subject, structure and organization of the text, illustrations, and words. Another teacher described holding conferences with individual students in areas of concern related to reading and writing. Another teacher used student-adult reading, whereby the student reads to an adult. Another teacher used choral reading to reteach concepts, while another teacher used tape-assisted reading which involves listening to a story on a tape with the use of a cassette player. In addition, several teachers used readers’ theatre, guided reading, and reading centers for reteaching. All teachers used partner reading.

### Analysis of Observation Data

The observation data for teachers in Grades 3 and 4 at School B were also analyzed according to the same criteria used at School A: (a) the physical environment or classroom setting; (b) diversity of the classroom, (c) gender makeup of the classroom, (d) content of the reading lesson, (e) instructional strategies used during the lesson, (f) verbal student responses during the lesson, (g) nonverbal responses during the lesson, and (h) questions asked during the lesson.

#### *Physical Environment or Classroom Setting*

The physical environment for each classroom at School B was somewhat similar in appearance to the classrooms at School A. The reason for this similarity was due to the district requirement that all teachers must follow the instructional guidelines recommended by the *SRA Open Court* reading materials. For example, students are seated so that every student can readily see the sound/spelling cards. A U-shaped desk arrangement is also recommended by the *SRA Open Court* reading materials. However, these classrooms were also set up somewhat differently from one another at School B, unlike the classrooms at School A which were more similar to one another in their settings. One of these classroom arrangements involved desks that were sectioned into groups of four students in the shape of an I. This classroom had two straight rows going across the classroom. A second classroom arrangement involved a U-shaped position. A third teacher arranged the desks so that they were facing each other in straight rows with a total of six rows with three to four students in each row. The fourth teacher's classroom arrangement consisted of rows of desks at a diagonal position with three to four students

in each row. There were four rows. These classroom settings were created to ensure that the use of the *SRA Open Court* materials progressed smoothly and effectively. This arrangement also allowed students to work independent and collaborative for reading and writing. Following the *SRA Open Court* guidelines, each classroom included areas for reading, listening, writing, and computer use. Each area was color-coded for easy access by the students. In addition, the following common materials were used in each of these areas: (a) a reading area which included leveled classroom library, magazines, and stopwatches; (b) a computer area which included a writing and creativity center, CD-ROMs, a research assistant CD-ROM, and a spelling CD-ROM; (c) a listening area which included tape recorders, CD players, and a listening library audiocassette/CD; and (d) a writing area which included construction paper, scissors, markers, writing paper, dictionaries, and a thesaurus.

This researcher also observed that the teachers at School B monitored their students very closely while modeling and discussing the lessons. The researcher observed how orderly the students were and how they worked independently in all classrooms. Because of the tremendous amount of space in the classrooms, the students worked much better independently. Like the classrooms in School A, the researcher observed that the various seating arrangements provided easy movement for the students, with a large open space on the floor for whole class and individual activities. This arrangement of the classroom facilitated easy access for the teacher by organizing the classroom into manageable sections. This arrangement also allowed the placement of those students with



visual, auditory, and other impairments in advantageous positions near the front of the room. The students at School B were also grouped heterogeneously.

*Diversity of the Classroom*

Diversity in the classroom at School B also referred to the number of students who were identified as African American, Latino American, and European American, according to the enrollment data. No Asian American or Native American students were identified at School B. Table 4 indicates the following findings.

Table 4

*Diversity of the Classroom School B*

Classes	Latino American	African American	European American
Grade 3	16	6	4
Grade 3	18	4	3
Grade 4	10	10	7
Grade 4	23	0	0

*Note:* Diversity is from the district's School Report Card, 2007

At School B, these students shared the same *SRA Open Court* reading materials, and some students needed extra help with the lessons. The English Language Development (ELD) Guide was also a resource that teachers used to provide extra help with English vocabulary and sentence structure. According to the *SRA Open Court* reading materials (2002), immigrants often traverse a series of phrases as they acclimate to a new cultural. Even more than a move to a new home or city, the move to a new country can leave students feeling lost, alienated, and sometimes hostile or depressed. The teacher's

primary objective was to teach students sufficient English to understand how to use the *SRA Open Court* reading materials so that they, like other students, could develop the foundations for learning how to read English. ELL students must be equipped to participate in a society that is largely English speaking. The instructional support for Latino American students at School B included the use of the English Language Development (ELD) Guide. The activities in the ELD Guide were designed to help ELL students feel more accepted by other students and included opportunities for them to talk about their country of origin and to translate words and phrases into their first language. Such experiences have the additional benefit of enriching the classroom for English-speaking students and for prompting harmonious relationships.

#### *Gender Makeup of the Classroom*

Similar to School A, the gender makeup of the classrooms did not appear to be an issue at School B, even though 3 of the 4 classrooms had a few more females than males as Table 5 indicates.

Table 5

#### *Gender of the Classroom School B*

Classes	Female	Male	Total
Grade 3	12	14	26
Grade 3	14	11	25
Grade 4	15	12	27
Grade 4	13	10	23

*Note:* Gender is from the district's School Report Card, 2007

### *Content of the Reading Lesson*

Like School A, the content of the reading lessons that this researcher observed at School B was directed by the *SRA Open Court* reading materials. The *SRA Open Court* decodable books are used by the Grade 3 teachers. These books are intended to help the pupils apply, review, and reinforce their growing learning of sound/spelling equivalences. This sixteen-page book is used by all Grade 3 students. The main function of this book was to present students with practice reading the words, with text materials controlled to include a majority of words whose sound/spelling relationship are known by the reader. The *SRA Open Court* reading materials also support the state standards in reading. The standards required that pupils in Grades 3 and 4 will be able to comprehend a wide variety of reading materials and know how literary elements are used to express meaning. The state standards also required students to apply reading strategies and skills to improve their reading fluency and comprehension. Additionally, students need to analyze and evaluate information acquired from various sources. Thus, these state standards as well as the *SRA Open Court* reading materials guide the teaching of reading at School B which was also true of School A.

In Grade 3, the instructional reading lessons focused on various comprehension skills. For example, the reading skill of predicting helped students to analyze information given about the story in terms of how that information was linked to the conclusion. The comprehension skill of fact and opinion helped students to evaluate information in order to determine whether the information was factual, something which could be verified or tested, or whether the information was based on opinion, in which case the validity could

not be demonstrated. In Grade 4, the instructional reading lessons emphasized comprehension skills such as visualizing which allowed students to create mental images as they read through the text. The reading skill of making connections allowed students to create associations to what they were reading and what they previously knew from past experiences or prior reading. The comprehension skill of making inferences helped students utilize information from the reading passage, along with personal experience or knowledge, to obtain a meaningful understanding of the story.

#### *Instructional Strategies Used during the Lesson*

Like School A, many of the instructional strategies used by the Grade 3 and Grade 4 teachers to deliver the reading lessons were recommended by the *SRA Open Court* reading materials. For example, each of the Grade 3 teachers at School B was required to provide direct instruction about the meaning of words. In order to do this, these teachers used direct instruction to confirm both general comprehension and specific understanding of individual words. One Grade 3 teacher prepared the students to read by writing on the chalkboard any non-decodable high-frequency story words introduced or reviewed in the story. The teacher pointed to each new word and had the students say it. The other Grade 3 teacher asked students to browse through the story and asked them to tell her what they thought would happen in the story. Following this pre-reading activity, students read the story a page at a time orally as a group and silently. The focus was on comprehension.

At School B, this researcher observed each of the teachers using direct instruction to teach specific reading comprehension skills in conjunction with their lessons.

Comprehension skills such as making connections, visualizing, and predicting were modeled and reviewed in the first reading of the literature. Comprehension skills, including author's purpose, classification, categorization, and making inferences, were modeled, practiced, and reviewed in the second reading of the literature. One teacher asked students to read the selection by applying whatever strategies they needed to help them make sense of the selection. Then the teacher discussed the selection to assure that students did, indeed, understand what they read. These students were able to talk about any confusion they may have had about the story and to make necessary clarifications. A grade 4 teacher modeled the use of various reading skills and gradually incorporated several types of prompts and "think-alouds" as examples of the types of thinking that students might do as they read. A Grade 3 teacher taught students to apply the skill of summarizing to help them stay focused on vital information in the story. In one grade 4 classroom, the teacher informed students that point of view involved recognizing who is narrating the story. All of these teachers used direct instruction to help students understand the skill of sequencing in a story and how sequencing helps them follow the author's line of thought.

Thus, the instructional strategies used during the reading lessons at School B for both grade levels included direct instruction in reading comprehension skills such as making connections, summarizing, monitoring and clarifying, predicting, visualizing and self-questioning to construct meaning from the text, and monitoring reading. Several of these teachers at School B used the "handing-off process", which is a technique used to allow students to be in control of a discussion. Time and again, students were inclined to

obtain every one of their “turns” at the teacher’s discretion. Once handing-off was in place, the instructor’s key role was to occasionally prompt students to hand off their turns and to make certain that everybody had an opportunity to participate. One instructor encouraged reflections on the reading selection. This was done after students had finished reading the selection, and these reflections provided a chance for students to participate in a large group discussion regarding the selection. Modeling and an emphasis on higher-order thinking skills were used by all of the teachers at School B as effective instructional strategies to help students understand the skills that good readers use.

#### *Verbal Student Responses during the Lesson*

Verbal student responses during the lesson for all four classrooms provided insight into the instructional factors that may or may not contribute to improved reading achievement. For example, this researcher observed that a few students did not read aloud, raise their hands, or answer any questions. These students appeared to be a bit shy and unsure that they knew the correct answer. These students also did not seem to respond well to direct instruction by the teacher in a whole group setting. Conversely, most of the pupils seemed to respond favorably to direct instruction. In all of these classrooms, many students were recognized by their teachers because they raised their hands and were eager to answer the teacher’s questions. Students were also asked what they liked about the story or to give details into their own words what the story was about. To the researcher, their responses to the teacher’s questions indicated that the students understood the lesson. In another Grade 3 classroom, a student read aloud from the story “Johnny Appleseed”, and he sounded out words that were unfamiliar. This

student seemed to respond favorably to direct instruction because when he was having trouble reading unfamiliar words, he used the example modeled by the teacher which was to break the words into sounds or syllables and then blend them together to read the word. As a result of teacher modeling, this student was able to read aloud with appropriate expression, pacing, and intonation. This researcher also observed that reading the selection with fluency and accuracy helped students comprehend the text. In another classroom, students made inferences about an event in the story titled “The Voyage of the Mayflower” by stating that the Pilgrims were brave, determined people because of their desire to make such a difficult and dangerous journey. Students made inferences based on the information from the content, in conjunction with their personal experience or knowledge, to acquire a meaningful understanding of the story. Direct instruction by the teacher about how to make inferences seemed to help many of the students improve their reading comprehension.

#### *Nonverbal Responses during the Lesson*

The non-verbal responses that were observed by this researcher during the instructional reading lessons at School B also provided some understanding of how students responded to the instruction. For example, some of these students were slumped down in their seats, hoping that the teacher would not see them or call on them. Some students looked away from the teacher or placed their heads on their desks. When one student was called on to respond to the discussion, he sat quietly twisting his hands. These students seemed to lack confidence in their responses to the reading lesson. However, other students bounced up and down in their seats, hoping to be called upon

because they knew that they had the right answer. Some of these students had big smiles on their faces, and they were eager to participate in the class discussion. In a third grade classroom, some students sat on the edge of their seats with their hands raised, waiting to be called on by the teacher to give their answer to the question or to discuss the summary of the story. In one Grade 4 classroom, some of the students were so enthused that they blurted out their answers without permission from the teacher.

#### *Questions Asked during the Lesson*

At both School A and School B, asking questions helped students to clear up any confusion that they had about the lesson. Asking questions also helped students check their understanding of the text. For example, in a Grade 4 reading lesson at School B, pupils worked in groups, and they asked questions of each other about the story. One student asked the question: What happened to the colonists at Roanoke? These students learned from reading the story that many of the early colonists had died of disease and starvation. Thus, the instructional strategy of asking questions seemed to be effectively used in all of the classes as part of direct instruction.

#### *Analysis of Documents*

##### *Lesson Plans*

At School B, the lesson plans for the first Grade 3 teacher consisted of preparing to read which involved the use of the student anthology book, sound/spelling cards, and routine cards. Word knowledge was presented by the teacher which included a discussion of prefixes and suffixes, the development of oral language, and related words and sentences. Reading and responding was done with the use of the student anthology book,



related reading transparencies, inquiry journals, reading comprehension and language arts skills workbooks, a unit assessment, and routine cards. The teacher emphasized the topics of building background, preview and preparation, vocabulary selection, and reading comprehension skills including predicting, monitoring, and adjusting reading speed. In addition, a student anthology was used to discuss the comprehension skill of fact and opinion. The inquiry discussion included investigating concepts beyond the text and the use of the concept/question board. Materials used for this discussion included the student anthology book, the research assistant CD-ROM, and inquiry journals. Lastly, the language arts component was presented with word analysis and spelling of the /kw/ and /skw/ sounds. Writing process strategies involving narrative writing included the genre of mystery as well as the writer's craft and the terms suspense and surprise. The English language conventions emphasized mechanics and capitalization. Materials used for this segment included comprehension language arts skills workbooks, a related language arts transparency, sound spelling cards, spelling and vocabulary skills, a writer's workbook, and the writing and creativity center.

The lesson plan for the second Grade 3 teacher dealt with preparing to read that included word knowledge related to the prefixes re- and be-, compound words, /s/ spelled s, ce, and ci\_, /j/ spelled ge, and related words and sentences. The next component in the lesson plan was reading and responding which consisted of building background, preview and preparation, vocabulary selection, the use of a student anthology book, and comprehension skills including asking questions, predicting, and summarizing. This teacher also discussed strategy use, the reading selection, and related reading

recommendations. A third component of this lesson plan was inquiry related to investigating concepts beyond the text. The last component of the lesson plan was a language arts component that included word analysis and spelling for the /s/ and /j/ sounds as well as a pretest, a review of writing process strategies, and an explanation of narrative writing in relation to the tall tale and the writer's craft including the concept of exaggeration. English language conventions of mechanics and capitalization were also presented. Materials used to teach this lesson included the student anthology book, a concept/question board, sound/spelling cards, routine cards, related reading transparencies, a unit assessment, a spelling and vocabulary skills workbook, a comprehension and language arts skills workbook, a research assistant CD-ROM, the writing and creativity center, and an inquiry journal.

The lesson plan for the first Grade 4 teacher started with preparing to read, involving word knowledge about adverbs ending in *ly*, the spelling pattern *-tion*, /*ī*/ spelled *igh*, *i\_e*, *\_y*, or *i*, and related words and sentences. Reading and responding focused on building background, preview and preparation, vocabulary selection, reading recommendations, and comprehension skills including visualizing, making connections, and summarizing. In addition, reading strategy use and the reading selection were discussed. Inquiry was used to investigate concepts beyond the text. The language arts section included word analysis and spelling of words ending in *-ing* and analogies. Writing process strategies included an emphasis on poetry and writing a cinquain as well as on prewriting and English language conventions such as grammar, usage, capitalization, and punctuation. Materials used to complete these lessons were routine

cards, a student anthology, an inquiry journal, related reading transparencies, teacher observation logs which provided information on skills and interventions, a unit assessment, a comprehension and language arts skills workbook, related language arts transparencies, spelling and vocabulary skills, and a student writing and research center.

The lesson plan for the second Grade 4 teacher consisted of preparing to read which involved the use of the routine cards. Preparing to read was discussed by the teacher. This discussion dealt with word knowledge of the base word colony, of gerunds, of the long u spelled \_ew, u\_e, \_ue, or u, and comparatives and superlatives with –er and –est, and related words and sentences. Reading and responding was done with the use of the student anthology, related reading transparencies, a teacher observation log, an inquiry journal, a comprehension and language arts skills workbook, a unit assessment, and routine cards. The teacher emphasized building background, preview and preparation, vocabulary selection, and comprehension strategies such as asking questions, monitoring and clarifying. In addition, strategy use, the reading selection, and reading recommendations were discussed. Inquiry discussion was conducted in relation to investigating concepts beyond the text and the use of the concept/question board. Materials used for this discussion were the student anthology and the inquiry journal. Lastly, the language arts component was presented with word analysis and spelling of words with –er or –est as well as a pretest and vocabulary. Writing process strategies involved poetry and writing a diamante as well as a discussion of prewriting and the writer’s craft in relation to alliteration. The English language conventions emphasized grammar, usage, and words, phrases, and clauses used as modifiers. Materials used for

this segment included a comprehension language arts skills workbook, language arts transparencies, a student anthology, spelling and vocabulary skills worksheets, a writers' workbook, the student writing and research center, and a unit assessment.

### *Staff Development Documents*

At School B, staff development documents that this researcher analyzed were similar to the documents analyzed at School A since much of the training in reading instruction was similar across all schools in the district. For example, at School B, some of the staff development sessions were related to DIBELS benchmark tests and the need for instructional support, DIBELS data review and implications for instructional focus, on-site follow-up, ISAT/IMAGE testing, interventions, and the use of grade level teams to improve student achievement in reading.

The documents related to the training on DIBELS benchmark tests were provided to inform teachers and administrators about the reading goals. The function of the DIBELS benchmark goal was to present teachers with standards for measuring the growth of every student. The benchmark targets represented the lowest possible levels of accomplishment for every pupil to achieve in order to be regarded as being on track for becoming a reader. DIBELS benchmark and progressive objectives initially were derived based on information from every school in this selected district who participated in the DIBELS Data System during the 2000-2001 and 2001-2002 academic years. These goals were measured at the beginning, middle, and end of the year. In addition, all of the goals represented progress toward full literacy, not a justifiable endpoint. The DIBELS

benchmark goals were the minimal level that students needed to attain to be certain that they were on the path for achieving the designated literacy outcomes. The final goal was for all of the students at each school to achieve each benchmark.

These documents related to the weekend seminars provided information for activities that teachers could design during the workshop. For the area of reading, activities included creating materials related to teaching such concepts as antonyms, synonyms, main idea, and spelling. Writing activities included cursive letter writing, letter cards, and words to place in a sentence.

Documents related to testing practices for educators were also provided to teachers at School B. These documents presented for this in-service provided guidance for teachers who administered the Illinois Standards Achievement Tests (ISAT) and the Illinois Measure of Annual Growth in English (IMAGE). Staff development on ISAT/IMAGE testing was presented to inform teachers about the 2008 revisions when administering these tests. These topics presented in this workshop included mandated procedures and activities as well as procedures and activities that were not encouraged and recommended instructional practices.

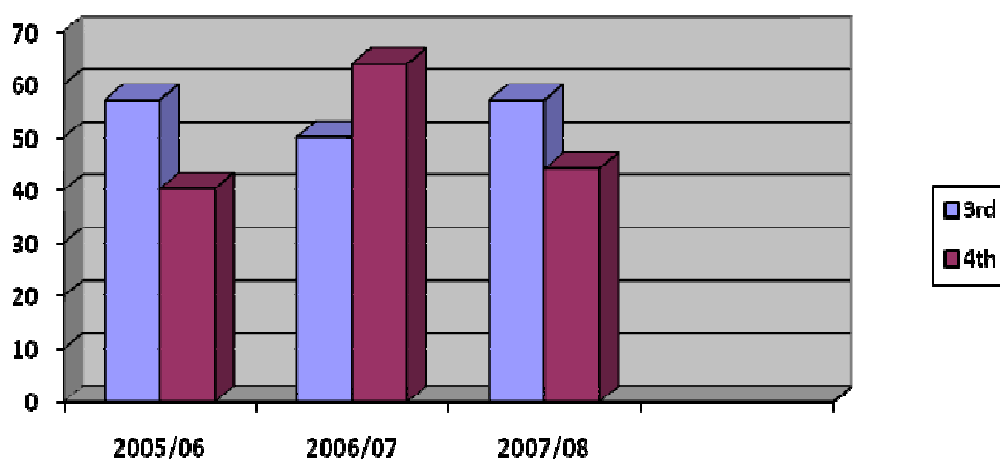
Documents related to the intervention workshop at School B provided teachers with information to use in relation to the use of leveled books; some of these materials included an intervention workbook and decodable books which supported the *SRA Open Court* reading materials. This intervention workshop was presented by a support staff of teachers who specialized in providing staff members with better ways of making reading progress.

Documents related to grade level team meetings were also provided to teachers at School B on a weekly basis. The purpose of these grade level meetings was to provide grade level data review, analysis, and intervention planning. Each team had an acting team leader. This team guided the correct use of the *SRA Open Court* reading materials, including the use of the pacing guide for reading and deciding what week during the first semester the first unit assessment be given. A plan for grouping students according to their needs, a review of resources, a plan for interventions, and a plan for progress monitoring was presented. This in-service was presented to educate the staff about how important it is to keep data and monitor the progress of student growth in reading fluency and reading comprehension.

#### *Student Assessment Documents*

##### State Assessments

Like School A, the student assessment documents used at School B also included the ISAT and the IMAGE. The ISAT was given to all students for the 2007-2008 school year. The IMAGE was not administered. The state of Illinois requires all monolingual and bilingual students to take the same tests in English, and the 2007-2008 school year was the first time that Limited English Proficient (LEP) students who would have taken the IMAGE in the past took the ISAT.



*Figure 2: School B classroom results for ISAT/IMAGE.*

Figure 2 shows the percent of students in Grades 3 and 4 who met or exceeded the state standards in reading for School B. In 2005-06, 57.1% of these students in Grade 3 met or exceeded the standards in reading. In 2006-07, 50.0% of these students in Grade 3 met or exceeded the state standards in reading. In 2007-08, 57.1% of these students in Grade 3 met or exceeded the state standards in reading. In 2005-06, 40.3% of these students in Grade 4 met or exceeded the state standards in reading. In 2006-07, 63.9% of these students in Grade 4 met or exceeded the state standards in reading. In 2007-08, 44.1% of these students in Grade 4 met or exceeded the state standards in reading.

These data indicates that at Grade 3 student achievement in reading declined slightly in 2006-07. For 2007-08 student achievement in reading increased, but there was still a concern about students at Grade 3. Less than 25% of these students at Grade 3 were meeting or exceeding the state standards in reading. These data also indicated a decrease in student achievement in reading for students in Grade 4 in comparison to Grade 3. A concern was that students in Grade 4 have demonstrated a significant decline in student achievement in reading over this three-year period.

### Classroom Assessments

At School B, teachers also used assessments as a device to monitor pupil improvement in reading and to detect student strengths and weaknesses in reading. These teachers also used formal assessments which consisted of performance assessments of both reading and writing and objective tests that involved multiple choice and essay. The *SRA Open Court* unit assessments are an integral part of a complete assessment program that is aligned with the curriculum at School B. These assessment components of the *SRA Open Court* reading materials were designed to help teachers at School B make appropriate instructional decisions. The variety of assessments was also intended to be used continuously and formatively. That is, students should be assessed regularly as a follow-up to instructional activities, and these results of the assessment were used to inform subsequent instruction.

At School B, unit assessments reflected the instructional content and reading selections in each unit. The various measures within a unit assessment allowed these teachers at School B to see how well students have learned these skills that have been recently taught and to provide any additional instruction that is necessary. Unit assessments included a variety of measures that varied in form and difficulty so they were both motivating and challenging. Some of the questions were relatively easy, and most students answered them correctly. Others were more difficult, but none were beyond the abilities of the majority of the students in a class. These skills featured on unit assessments were tied to reading success and reflected both state and national standards. These unit assessments included individual lesson assessments that assessed the skills



taught in each lesson immediately after instruction was delivered. These assessments helped teachers determine how well students were grasping the skills and concepts as they were taught. Unit assessments also assessed the skills taught throughout the unit. These assessments helped determine the students' abilities and growing bank of knowledge in addition to their ability to retain concepts over a limited period of time, normally six to eight weeks per unit.

Diagnostic assessments were utilized at School B for students who were not performing to their ability level. On behalf of the bulk of the pupils in a classroom, the program assessment component of the *SRA Open Court* reading materials provided the teacher with all the information needed to make appropriate instructional decisions. In certain circumstances, teachers needed to gather additional information with the aim of providing pupils with appropriate instruction. Some of these students for example, had specific skill deficits that prevented them from making adequate progress. Some students entered the class after the beginning of the school year. At times, the teacher might want to group students who have the same skill deficit. For these circumstances, diagnostic assessments were provided. These diagnostic assessments offered a variety of measures that allowed these instructors to recognize students' strengths and weaknesses. These results of these diagnostic assessments helped these teachers develop intervention strategies and choose the right supplemental instruction that met the student's needs. General and specific instructions were provided so that these teachers could use these diagnostic assessments efficiently without disrupting the instructional routine.

These data showed that not all students performed well on these assessments. For example, in one Grade 3 classroom, five students were not able to master an assessment for unit 6. These students did not master the comprehension, vocabulary, and grammar portions of the assessment. A mastery level was set as follows: comprehension: 80%, vocabulary: 80%, and grammar, usage, and mechanics: 83%. Some of these students achieved scores in the 20% to 40% range. In one Grade 4 classroom, four students did not pass the assessment. Students who did not achieve a passing score were placed in an after-school tutoring program. These students were tutored twice a week for one hour and thirty minutes for two weeks. By the close of the tutoring program, pupils were given the assessment again. This was a requirement set by the building principal.

DIBELS was also used by teachers in Grades 3 and 4 at School B to test students for accuracy and fluency in reading. The use of DIBELS was to present pupils with adequate, suitable, and valuable instruction that provided outcomes with significant improvement in performance to make all students readers. DIBELS was administered three times during the year at School B. The testing took place in the Fall, Winter, and Spring of the school year. These tests were administered by reading specialists and these classroom teachers. DIBELS is an outcome-driven model developed to produce prevention-oriented assessments. This intervention system detects early reading difficulty and alerts teachers to any indications of additional instructional support. DIBELS was developed to present information with the intention of helping teachers match the amount and type of instructional support with these needs of individual students to enable all

students to become successful readers. The benchmark goals were 110 words per minute for Grade 3 students, and 118 words for Grade 4 students. DIBELS results of each student were stored on AIMSWEB which is a web site used by the district. Students who did not achieve mastery on this assessment were monitored, and interventions were written by teachers for those students. Each student who scored 25% or less on this assessment was monitored twice a month. Interventions were done daily. In Grade 3, a total of seven students were monitored twice a month by the teachers. Six students were monitored in the Grade 4 classrooms by their teachers.

In summary, staff development and student assessment documents also played an important role in understanding the instructional reading program at School B, as they did at School A. Each teacher at School B also utilized instructional strategies recommended by the *SRA Open Court* reading materials in order to help each student make substantive improvement in reading. Those teachers at School B also made provisions for those students not working at grade level by providing instructional interventions for each student. The posting of the DIBELS results on the AIMSWEB also provided students with individual results of their progress as well as what additional and/or substantial interventions were needed.

#### Level Two Cross-Case Analysis: Theory Development

In a multiple case study such as this one, the cross-case analysis begins when the researcher seeks to build abstractions across the single cases. This is when the researcher attempts “to build a general explanation that fits each of the individual cases, even though the cases will vary in their details” (Yin, 1994, p. 112). The researcher attempts to see

“processes and outcomes that occur across many cases, to understand how they are qualified by local conditions, and thus develop more sophisticated descriptions and more powerful explanations” (Miles and Huberman, 1994, p. 172). The development of a theory in case study research is done at the second level, once these data has been organized according to sources of evidence, and categories have been constructed from these data, using the constant comparative method suggested by Merriam (1998). This second level of analysis involves the development of theory or the building of a theoretical proposition (Yin, 1994); moving concrete descriptions of observable data to a more abstract level involves using concepts to describe the phenomena. This process involves systematically classifying data into some sort of schema consisting of themes, patterns, and relationships. An even higher level of analysis involves making inferences, developing models, or generating theory (Miles and Huberman, 1994). In order to develop a theoretical proposition, however, the research questions for this case study first need to be analyzed in a cross-case fashion in order to understand the themes, patterns, and relationships in these data.

### Analysis of Research Findings

#### *Central Question*

*1. What are the nonquantifiable instructional factors that contribute to the improvement of reading for students in the regular classroom in Grades 3-4 in a Midwestern urban school district?*

Based on the interviews and observations that the researcher conducted at both elementary schools, one of the major findings of this study was that the use of explicit or

direct instruction was an instructional factor that appeared to significantly contribute to the improvement of reading for students in the regular classroom in Grades 3 and 4 in this urban school district. For this study, explicit or direct instruction consisted of instructor-guided classification of learning goals, detailed presentations to pupils, instructor modeling, student practice of skills, and frequent assessment of skills. The systematic instruction included a sequence of skills presentations that were research based and included specific learning routines. When teachers in this study implemented systematic and explicit instruction, frequent teacher modeling was also observed.

A second major finding for this study was that instruction in specific reading comprehension skills in conjunction with the use of high quality literature that formed the core of each lesson also appeared to significantly contribute to the improvement of reading for these students. Comprehension skills such as predicting and asking questions were modeled, practiced, and reviewed in the first reading of the literature. Comprehension reading skills such as drawing conclusions and sequencing were modeled, practiced, and reviewed in the second reading of the literature. The researcher observed that this comprehensive and sequential development of reading skills appeared to help students build confidence in their ability to read well.

#### *Related Questions*

#### *2. How do teachers use DIBELS to improve achievement in reading for students in Grades 3 and 4?*

Teachers used DIBELS in this study to chart improvement on individual students, to drive instruction in the area of fluency, and to improve reading instruction and

achievement in general. This study also revealed that some teachers used DIBELS to place students in a particular reading group, to determine the independent reading levels of their students, and to check their fluency. Overall, teachers used DIBELS as a monitoring and benchmarking tool to measure individual student progress.

*3. What are teacher perceptions about the effectiveness of their instruction to improve student achievement in reading in relation to the implementation of DIBELS in the classroom?*

The majority of these teachers in Grades 3 and 4 at School A and School B felt that early literacy indicators such as DIBELS were effective in improving achievement in reading for their students. These teachers felt that DIBELS was effective because they involved a way to monitor individual student data in order to keep track of how fluent the students were in reading and to chart improvement on a frequent basis for these students. Teachers also felt that DIBELS were effective in improving achievement because these early literacy indicators diagnosed fluency and retelling skills and provided guidance in placing students in reading groups. In addition, teachers felt that the use of these early literacy indicators helped them determine if students were reading at grade level or below and how much progress in reading was made.

In terms of the effectiveness of their own instruction, many teachers openly discussed the challenges that they faced while implementing DIBELS. For example, several teachers expressed concern about students who demonstrated reading skills below grade level on the DIBELS test but who still managed to achieve proficiency on the state test (ISAT) which is written at the third grade level. Another observation that several

teachers made was that it was challenging to administer the tests because students would not sit quietly while they were working with an individual student. The greatest challenge to effective instruction, however, was that teachers felt that they had to administer DIBELS on their own, without any help from other support personnel such as reading specialists. Teachers expressed concern about the time they had to take away from their instruction in order to administer the DIBELS test. These teachers felt that it was the responsibility of the reading specialists to give the DIBELS test because these reading specialists were able to give the test to one student at a time. These specialists could test the student in the hallway outside the teacher's classroom without interruption from other students. This researcher felt that these teachers responded to this question with comments about the challenges that they faced in providing effective instruction, rather than discussing how effective their own instruction was.

*4. What are teacher perceptions about the relationship that needs to exist between the student and the teacher in order to improve student achievement in reading?*

Teachers at both School A and School B generally agreed that the student must feel accepted by the teacher and that teachers must provide a positive atmosphere for every student. Another belief that teachers shared was that a good relationship between the teacher and the student often happens because the student improves his or her achievement in reading. Several teachers also felt that knowing these strengths and weaknesses of their students helped them better prepare their lesson plans and to deliver more effective instruction in reading. According to several teachers, the more effective the instruction, the better the relationship between students and teachers.

5. *What other instructional and assessment strategies are used by the classroom teacher in addition to DIBELS to improve student achievement in reading?*

In addition to DIBELS, other instructional and assessment strategies were used by these classroom teachers in Grades 3 and 4 to improve student achievement in reading. One instructional strategy used by all of the classroom teachers was monitoring and clarifying by which students noted characteristics of the text, such as whether it was difficult to read or whether some sections were more challenging or more important than others. Modeling was another instructional strategy that teachers frequently used in all classrooms at both schools; this strategy required students to paraphrase the text, reporting the main ideas of the text. Another instructional strategy that was frequently used was inquiry which provided students with a systematic structure for investigation driven by their own interests and conjectures.

One of the major assessment strategies used by all teachers was chapter and unit assessments because this was a requirement of the *SRA Open Court* reading materials. The teachers believed that these classroom assessments were effective because they used a variety of assessments for determining student performance, including formal teacher observations, formal assessments, and on-demand reading and writing performance evaluations. The use of these multiple assessments provided a more inclusive picture of student progress and avoided the partial picture of performance that results from basing assessment on just one or two measures. These assessments also more suitably showed how well students understood skills and how they applied them in learning. The instructional implications of this finding is that assessment strategies were valuable



because they led to changes in classroom instruction. These assessment tasks reflected classroom practices, and when assessment results suggested that pupils were having a hard time mastering a skill, teachers discovered that they needed to implement alternate instructional strategies and materials.

In addition, a Chapter 1 reading teacher was provided by the district for all classrooms at both School A and at School B for instructional support. The Chapter 1 reading teacher worked with a group of students who were reading below grade level. The students were taken out of the classroom daily by the Chapter 1 teacher and provided with additional help in reading. All of the teachers were pleased by this assistance.

At both School A and School B, ESL support was also available for students who were performing below grade level in reading. These same instructional and assessment strategies that were used with regular education students were used with ESL students. For example, materials used to differentiate instruction for ESL students were the *English Learner Support Guides and Activities* which included preteaching and reviewing of the *SRA Open Court* reading lessons; intervention guides and workbooks; support for students who needed remediation; reteaching activities for students who needed a skill review during the lesson; challenge activities for students who would benefit from a skill challenge during the lesson, and differentiating instruction support activities which were quick activities available at the end of the unit to address students who needed an additional review before moving to the next unit. Activities were also available for those students who would benefit from extending a skill lesson.

### Confirmation of the Theoretical Proposition

According to Merriam (1998), “thinking about data or theorizing is a step toward developing a theory that explains some aspect of educational practice and allows a researcher to draw inferences about future activity” (p. 188). In other words, theory development in qualitative research involves a process of discovering theoretical categories and the associations between those categories in order to develop a single unifying idea or theory about these data. In this case study, a tentative theoretical proposition (Yin, 2003) was developed by this researcher in chapter 3 in relation to the central purpose of this study which was to explore the instructional factors that contributed to the improvement of reading for students in the regular classroom in Grades 3 and 4 in a midwestern urban school district. This researcher presented the theoretical proposition that the consistent use of early literacy indicators as well as specific instructional strategies and the use of direct instruction are the instructional factors that are most significant in improving student achievement in reading for students in Grades 3 and 4 in a large urban school district. The consistent use of early literacy indicators refers to the frequent administration of these indicators in order to show growth in reading. At both School A and School B, frequent staff development on specific topics such as early literacy indicators and reading interventions provided support for the teachers in developing a strong instructional reading program in their classrooms. These teachers then incorporated these early literacy indicators into their instructional lesson plans. The *SRA Open Court* reading materials, which were used in this study, also consistently supported current reading research on the use of such early literacy indicators. For

example, instruction in phonemic awareness and systematic phonics is supported by the work of Adams, whose publication on beginning reading instruction, *Beginning to Read: Thinking and Learning about Print* (1990), is considered a foundational work in the field.

A major theme to emerge from the data analysis was that direct instruction played an important factor in improving student reading achievement because teachers in this study believed that a direct instructional approach afforded pupils the very best opportunity for early and enduring achievement in reading. Through direct instruction, reading lessons were presented by teachers in this study in the most logical and efficient way to teach students to read with skill and confidence. In direct instruction, these instructional reading skills that were taught by the teachers were arranged from the simplest to the most complex. Since these reading skills build upon one another, the students were able to grasp complex reading skills more easily. Based on the observations that this researcher conducted, it appeared that students were most successful in learning how to read when they learned through a balance of systematic and direct instruction in sound and word recognition, guided practice, and application of skills with extensive reading of decodable text and authentic literature. For this case study, direct instruction was defined as instructor directed association of learning goals, detailed presentations to pupils, instructor modeling, pupil practice, and teacher determined assessments.

In addition, another major theme that emerged from these findings was that teachers used very specific and powerful instructional strategies in reading to support their direct instruction. The instructional strategies were modeling, cooperative learning,

activating prior knowledge, inquiry, investigation, scaffolding, and independent reading. For example, scaffolding focuses on a research based concept based on the idea that at the start of learning, students require an enormous amount of assistance; however, over time, this assistance is taken away to encourage students to learn on their own (Collins, Brown, & Newman, 1986; Vygotsky, 1978). Pearson (1985) called this idea the “gradual relief of dependability (p. 318).” If students are not capable of attaining independent status, the instructor brings back the assistance system to help students encounter success until they are able to attain independent status again (Cooper, 1993). The use of these instructional strategies to teach reading is based in part on the work of Cooper (1993) who argued that specific reading comprehension skills should be modeled by the instructor. Responsibility for the independent use of these reading skills can then be slowly turned over to the students, using think-aloud methods developed by Bereiter and Bird (1985). Thus, instruction related to reading comprehension must center on the need for students to develop a range of essential reading skills such as summarizing, predicting, monitoring and clarifying, visualizing, asking questions, making connections, and monitoring and adjusting reading speed. These reading skills permit readers to check understanding, make meaning of text, and decipher dilemma as they are reading. Students who expand these skills necessary to read with fluency and comprehension acquire entrance to the world’s information (*SRA Open Court Reading*, 2002).

#### Nonconforming and Discrepant Data

Even though the data analysis for this study confirmed the theoretical proposition, this researcher discovered some discrepant information in the literature review and in the

data analysis that could lead to alternative explanations to the theoretical proposition. In relation to the literature review, even though research has consistently shown that DIBELS have adequate reliability and predictive validity for use in school settings (Good et al., 2002; Kaminski & Good, 1996), some questions have surfaced about its effectiveness in relation to improving reading comprehension. The benefit of using a progress-monitoring tool such as DIBELS lies in the extent to which teachers use the data to inform their classroom practices. Only a handful of studies have directly investigated the utility of progress monitoring for purposes of modifying instruction, and nearly all research has examined the benefits of frequent progress monitoring rather than periodic benchmark assessment. To date, the results of these studies have been mixed (Scott, Vitale, & Masten, 1998; Stecker, Fuchs, & Fuchs, 2005). For example, Stecker and Fuchs (2000) documented improvement in academic performance when teachers used information from CBM to provide students with instruction based on their individual needs. Fuchs, Fuchs, Hamlett, Phillips, and Kams (1995), however, found that making instructional adaptations based on CBM performance depended heavily on the provision of structured recommendations from consultants, prompts to use adaptations, and ongoing support for implementation. Most recently, Graney and Shinn (2005) found that students whose teachers received feedback about CBM performance made no more significant reading gains than students whose teachers received no feedback. Moreover, when teachers received individual feedback, students actually made less progress over time than students whose teachers received aggregated group feedback or no feedback at all. Graney and Shinn (2005) hypothesized that teachers may have either relaxed their

instructional intensity for students who were making adequate progress or "given up" on children who repeatedly made little progress.

Thus, some research studies have indicated that the use of progress-monitoring procedures, such as CBM, has the potential to help teachers make changes in their classroom instruction to promote academic progress among students. However, using CBM alone was likely to be less effective for improving students' performance than using information in combination with specific instructional recommendations and consultation. Teacher training and support may be critical for ensuring that progress-monitoring information leads to high-quality instructional adaptations for children whose progress is inadequate (Scott et al., 1998; Stecker et al., 2005).

In addition to those studies that reveal some limitations to the use of early literacy indicators, a number of studies have also indicated that the classroom environment, the curriculum materials, and the teacher's instructional practices need to support literacy development for students who represent a wide range of ability and background. Academic diversity creates challenges for the general education teacher; some teachers avoid dealing with the students who fall at the extremes of the range, teaching mainly to the middle group (Fuchs & Fuchs, 1998). One teacher concluded that when students' learning needs are not met, gaps in reading achievement widen as struggling readers lose confidence (Fuchs et al, 2001). Failing to experience success when they engage in literacy activities, students lack motivation to continue reading. Students who experience lowered confidence and poor self-esteem often add behavior concerns to the demands on teachers' time (Ambe, 2007; Fuchs et al., 2001). In order to teach reading, teachers must

draw on their knowledge of children, their learning styles, and the reading /learning process, combined with ongoing assessments, as they make a series of complex decisions that influence and mediate literacy (Fountas & Pinnell, 1996). Unfortunately, teachers often lack the assessment skills necessary for proper collection and organization of student data that may be used as a means of reflecting on instructional interventions (Conderman & Strobel, 2006). Additionally, teachers have inadequate time to devote to analyzing students' reading errors (Dewitz & Dewitz, 2003). Davidson and Myhre (2000) reported that although teachers had access to many assessments to determine how well a student was reading, many of these methods were teacher or district developed; consequently, the assessments were not tested for validity or reliability. Sloat et al. (2007) stated that while teachers still rely extensively on informal assessments, "they expressed a desire to augment these approaches with measures that provided empirically derived learning benchmarks, concrete data on children's progress, and clear evidence of where children were struggling" (p.524).

Thus, these studies indicate that teachers have limited time to learn critical information about their students' learning needs as well as how to effectively use a wide variety of assessment instruments. Therefore, teachers may find it challenging to consistently and effectively use early literacy indicators and research based instructional strategies in reading if they do not receive adequate staff development and administrative support in these areas.

In addition to these discrepant studies in the literature, this researcher also discovered a few discrepancies in the data collection and analysis process. For example,

the findings of this study indicated that each of the eight teachers who participated in this study were comfortable following the same instructional guidelines established by the *SRA Open Court* reading materials. However, during the interviews, these teachers also revealed many individual differences in their beliefs about classroom instruction, even though their actual instruction was more alike than different. For example, one Grade 4 teacher at School B concluded that grade level standards might not have played a large part in reading effectiveness, even though the findings in this study revealed that most teachers supported the idea that clear standards played a considerable role in the improvement of reading achievement for students. Another teacher believed that teachers must first act as diagnosticians in order to pinpoint student strengths and weaknesses in relation to reading skills. However, no other teachers described themselves as diagnosticians; this was surprising considering that these teachers need to have the skills needed to diagnose specific reading problems for individual students.

#### Evidence of Data Quality

In Chapter 3, a plan was developed to protect the internal and external validity of the study as well as the reliability of the study. In order to protect the internal validity of the study, this researcher used the strategies of triangulation, member checks, and clarification of the researcher's biases. Triangulation was used by implementing multiple sources of data collection, including interviews, observations, and documents. Member checking involved taking tentative interpretations back to the eight participants and asking if the tentative results of this study were plausible. The researcher met with individual teachers once Chapters 4 and 5 were completed and presented a summary of



the tentative findings. After each teacher reviewed the findings of this study, the participants commented that the findings appeared to be realistic. In addition, the internal validity for this study was also protected by clarifying the biases that were brought to this study by this researcher as a classroom teacher who currently provides reading instruction to students at one of these sites. The use of the *SRA Open Court* reading materials, in particular, provided direction for teaching students how to become better readers. This researcher observed that the instructional lesson plans prepared students for the reality of a successful reading future. In conversations with the teachers, this researcher came to believe that the continuous participation of the teachers in professional development training was very helpful in relation to improving their instruction. In addition, the external validity of this study was ensured through the use of rich, thick description, the typicality of this instructional reading program which is often found in similar urban settings, and the use of a multisite design.

In relation to the reliability of this study, this researcher used triangulation and an audit trail. Concerning the audit trail, this researcher also followed strict protocols for data collection and data analysis, and copies of the data collection instruments, the consent forms used for the interviews and observations, and the letters of cooperation from the district and the site were provided in the appendices.

### Summary

This chapter presented a review of the purpose of the study as well as a review of the data collection protocols and adjustments that needed to be made to those protocols. The majority of the chapter, however, presented the analysis of data that was conducted

at two levels: category construction and theory development. At the first level, data was analyzed according to the evidence collected for each single case, which was defined as the instructional reading program at School A and at School B. The evidence collected at both sites included interviews, observations, and documents related to instruction and assessment in reading for Grades 3 and 4. Once data was analyzed for each single case, a cross-case analysis was conducted, using the research questions as a framework, in order to discover patterns, themes, and relationships in the data. From this analysis, one unifying idea or theory about the instructional factors that contribute to reading achievement for students in Grades 3 and 4 at two large urban midwestern schools was revealed.

Chapter 5 will present an interpretation of these findings, using the research questions as a framework. In addition, this chapter will present specific recommendations for action and for future research as well as the implications for positive social change in education. The researcher will present her reflections about this study and a conclusion.

CHAPTER 5:  
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Research Findings

The purpose of this study was to explore the instructional factors that contributed to improved reading achievement for Grade 3 and 4 students in the regular classroom at two schools in a large midwestern urban school district. The findings from the data analysis in Chapter 4 indicated that the most significant factors that contributed to student achievement in reading at these two schools were the use of direct instruction and the consistent use of early literacy indicators such as DIBELS. In relation to direct instruction, this researcher also observed that the teachers at both schools used specific instructional strategies in conjunction with high quality literature to form the core of each reading lesson. DIBELS were used to place students in a particular reading group, to determine the independent reading levels of students, and to check fluency. These data indicated that teachers believed that the consistent use of DIBELS was effective in improving reading achievement for students. Another finding of the study was that teachers believed that direct instruction also seemed to improve the relationship between students and teachers. This belief is supported by Cotton (2000), who stated that teachers and students can achieve success through cautious preplanning, successful classroom management and instruction, constructive instructor pupil communications, attention to impartiality matters, and standard assessment. Lastly, data analysis also indicated that at both School A and School B, the same instructional and assessment strategies that were

used with regular education students were used with ESL students to improve their reading achievement.

According to Killen (2007), it is imperative that schools create an effective learning environment that will focus on the requirements of all pupils. Killen argued that the learning environment needs to be organized and managed so that it is easy for all pupils to focus on learning. In this case study, the teachers at these two schools believed that they had worked hard to develop and maintain a learning environment that was productive and valuable for their students. These teachers also believed that instruction must focus on high expectations and that teachers need to implement powerful learning strategies and use multiple assessment avenues. As Brescia (2006) noted, in schools that maintain academic quality, the staff is usually consistent and purposeful in cross-grade-level and cross-subject-level dialogue that promotes student learning.

#### Interpretation of Research Findings

##### *Central Question*

*What are the nonquantifiable instructional factors that contribute to the improvement of reading for students in the regular classroom in Grades 3 and 4 in a midwestern urban school district?*

According to the findings in this case study, the instructional factor that contributed most significantly to the improvement of reading for students in these classrooms was direct instruction, including the consistent use of early literacy indicators and other specific instructional strategies in reading. Several research studies have defined direct instruction as a model for teaching that stresses thoughtful and well

organized lessons developed in small learning increments and based on clearly prescribed teaching tasks (Carnine, 2000).

Direct instruction was also definitely not a new methodology to teaching and learning. The first educational policy about direct instruction was implemented through Title I in the 1960s. Title I was established to supplement regular classroom instruction, specifically reading instruction, for low achieving, low-income children (McGill-Franzen, 2000). As a component of President Johnson's War on Poverty, Project Follow Through was developed to target the most disadvantaged American schools in order to study K-3 reading instruction. Project Follow Through ran from 1967 to 1995 with a cost estimated at over a billion dollars (Grossen, 2001). Reading First was founded on the scientifically based research practices recommended by Project Follow Through. These important mechanisms of reading instruction, according to Reading First, were explicit and systematic teaching of phonemic awareness, phonics, fluency, vocabulary development, and reading comprehension strategies (U.S. Department of Education, 2001).

In their study, Carnine (2000) and Traub (1999) defined direct instruction as a method to teaching that is skilled oriented with instructional routines that are teacher directed. Direct instruction is utilized his own children in the 1960s, was refined and field tested by Englemann (1998), Carnine (2000), and Traub (1999) with thousands of learners in the United States. An interesting feature in the classroom with small group, face-to-face instruction by teachers and aides with cautiously articulated lessons in which cognitive skills are broken down into small units, sequenced deliberately, and taught

clearly. Direct instruction, a method of instruction that was developed by Engelmann in teaching his own children in the 1960s, was refined and field tested by Englemann (1998), Carnine(2000), and Traub (1999) with thousands of learners in the United States. An interesting feature about direct instruction is that it is one of the few methods of teaching at that time that was actually field tested with children and customized to guarantee efficiency in instruction. In using direct instruction, the teacher has face-to-face connection with students, frequently in small groups in a semicircle. The instructor is in charge of the interactions in the classroom, telling, showing, modeling, demonstrating, and prompting fast and active responses from the students. Instructors also adhere to carefully created scripts that have been planned to improve learning and reduce misunderstanding. Completion of effective direct instruction entails recurrent systematic assessment. Such as when an instructor asks 300 or more questions each day, and checks that children have achieved 100% mastery in reading every five or ten lessons (American Federation of Teachers, 1998).

Some educators oppose direct instruction, even though it is a proven process of effective instruction for early reading and one with an escalating foundation of support between classroom teachers. This researcher noted that, in this study, some classroom teachers continued to argue against direct instruction, functioning on their own to implement other instructional approaches to teaching that differ significantly from the direct instruction approach that they have generally been taught to use.

In this study, the effectiveness of direct instruction was also found to be linked to the use of early literacy indicators such as DIBELS. As stated earlier, these indicators are

designed to quickly and efficiently assess prereading and reading skills in kindergarten through sixth grade. DIBELS is an assessment used to measure basic literacy skills, including initial sound fluency, phoneme segmentation fluency, nonsense word fluency, letter naming fluency, oral reading fluency, word use fluency, and retelling fluency. Each of these constructs can be related to one or more of the constructs on the development reading assessment (Beaver, 2001). Therefore, DIBELS are a set of standardized, individually administered measures of early literacy development. They are designed to be short (one minute) fluency measures used to regularly monitor the development of prereading and early reading skills.

Another major finding of this study is that direct instruction in reading for students in Grades 3 and 4 needs to be supported by the consistent and frequent use of early literacy indicators such as DIBELS. These indicators are defined as assessments that measure the growth and development of early literacy skills in kindergarten through Grade 3 (Kaminski & Good, 1996, 1998). The introduction of early literacy indicators began when President Clinton introduced a \$260 million literacy initiative for children known as America Reads (1996). The emphasis of this initiative was to help students read proficiently by the end of Grade 3. America Reads was a response to the findings of the National Center for Educational Statistics (NCES) that stated that the serious stage for children to be taught to read was from birth to age eight. Through educators, parents, business owners, senior citizens, religious organizations, and volunteers across America, the goal was to make sure that children were engaged in meaningful reading activities for 30 minutes per day. When using early literacy indicators, reading instruction usually

begins with whole group, teacher directed lessons so that all children have access to the same instructional models; then students are released gradually from directed teaching to work independently or in collaborative groups.

In addition to the frequent and consistent use of early literacy indicators, this study also found that specific instructional strategies in reading need to be consistently and frequently used to support direct instruction. For example, the instructional strategy of monitoring and clarifying was frequently used by teachers in this study. In relation to this strategy, students noted characteristics of the text, such as whether it was difficult to read or whether some sections were more challenging or more important than others. Another instructional strategy that teachers frequently used in all classrooms at both schools was cooperative learning; this strategy required students to work in groups and share information. Activating prior knowledge was another instructional strategy which involved activating prior and related knowledge. Finally, the instructional strategy of modeling was also frequently used by teachers which served as an example of behavior.

One of the major assessment strategies used to support effective direct instruction was the use of chapter and unit assessments by all teachers; use of these assessments was also a requirement of the *SRA Open Court* reading materials. These assessments were effective because they used a range of methods for determining pupil performance, containing formal teacher observations, formal assessments, and on-demand reading and writing performance evaluations. The use of these multiple assessments provided a more comprehensive image of pupil development and improvement and avoided the more partial analysis of accomplishment that results from basing measurement on just one or



two procedures. The same instructional and assessment strategies that were used with regular education students were also used with ESL students. Explicit and direct instruction also played an important factor in improving student reading achievement because the direct instructional method allows pupils the very best opportunity for early and ongoing achievement in reading.

According to Dewitz, Jones, and Leahy (2009), there appears to be a strong similarity in core reading programs and research basal programs. In their study on comprehension strategy instruction, the core reading program curriculum included instructional guidance for classroom teachers. These researchers pointed out those basal reading programs have always served a prominent role in directing and guiding reading instruction in the United States. Literature-based instruction and authentic texts were the driving force in the literacy field in the 1990s. These core programs built the content of reading around selections from the children's literature canon and built instruction around responses to the literature. Dewitz et al. (2009) discussed the passage of the NCLB Act and the Reading First mandate in relation to using scientifically based reading-research programs and how core reading programs have adapted by augmenting the phonemic awareness and phonics instruction, incorporating more work on fluency and providing auxiliary materials for intervention. According to Education Market Research (2007), 73.2% of the schools surveyed stated that they either closely follow a basal program or use it selectively. Only 25.1% reported not using a basal program. The five most widely used core programs in 2007 were *Harcourt Trophies*, *Scott Foresman Reading*, *McGraw-Hill Reading*, *Houghton Mifflin Reading*, and *SRA Open Court Reading*. Dewitz et al.

(2009) noted that the NCLB Act and its Reading First mandate caused published reading programs to assume even more importance as the primary vehicle for classroom reading instruction.

### *Related Questions*

1. *How do teachers use DIBELS to improve achievement in reading for students in Grades 3 and 4?*

The data collected from the interviews and observations in this study clearly indicated that the teachers used DIBELS as a way to monitor student growth in the area of fluency. Teachers believed that fluency could be improved through the development of oral language; for example, teachers used syllabication to help students blend words and build fluency. Teachers presented this lesson using direct teaching methods. An instructional activity was used to help students practice reading the words aloud. Students were also encouraged to extend sentences. The Grade 3 teachers at both schools also built fluency by using decodable text that contained a majority of words whose sound/spelling associations were familiar to the reader. The purpose of building decodables and fluency is to make written ideas intelligent to students which entails a balanced approach consisting of systematic instruction in phonics in addition to engagement with high quality literature. Teachers were also observed presenting the story with supporting phonics instruction. Since structured fluency is necessary to strong comprehension, the more fluent the students become, the more they can pay attention to understanding the text. Teachers made this opportunity possible by having students partner-read and having the *SRA Open Court* reading decodable books readily available in the classrooms as well

as using the decodable books with students one at a time and with student partners during Workshop. The teachers in this study believed that the only way the students could become fluent readers was to read as much as possible and as often as possible.

The positive and predictive relationship between reading fluency and comprehension has been established in an independent study conducted by Educational Research Analysis (2002). This relationship is based on the notion that fluency provides a link between speed and accuracy of word recognition in the connected text and comprehension (Armbruster et al., 2001). The effortless and automatic recognition of words is essential, but so are other aspects of reading fluency, including (a) knowledge and applications of syntax; (b) expression; and (c) attention to the prosodic features such as intonation, stress, and pausing (Pinnell et al., 1995). A more complex view of reading would also include knowledge of text structures and the awareness of the language seen in expository and narrative texts. Moreover, proficient readers think actively when reading by having clear reading goals, previewing text, making predictions, integrating prior knowledge, and monitoring their understanding of text (Duke & Pearson, 2002). A more complex view of reading is needed to account for not only all features of reading fluency and the knowledge of text structures and language, but also for the metacognitive and comprehension strategies that skillful readers possess and actively use.

*2. What are teacher perceptions about the effectiveness of their instruction to improve student achievement in reading in relation to the implementation of DIBELS in the classroom?*

The majority of the teachers in Grades 3 and 4 at both schools believed that their instruction was effective in improving student achievement in reading, especially in relation to the implementation of DIBELS in the classroom. These teachers felt that their implementation of DIBELS was effective because they used these early literacy indicators to monitor how fluent the students were in reading and to chart improvement for these students on a regular basis. Teachers felt that using DIBELS in their classrooms to improve the fluency of their students made them more aware of the actual reading achievement of their students. The teachers also believed that the majority of their students were engaged in their learning. In support of this idea, Dewey (1933) believed that the role of the teacher is to stimulate curiosity and fully engage students in the learning process as well as to teach them how to think and process information. The teachers in this study believed that their instruction was effective because their reading lessons were enjoyable, motivating, and interesting. If students were participating and enjoying themselves, these teachers considered the instruction effective. Many of the teachers in this study focused their instruction on concrete aspects of instruction such as lesson procedures and student reactions rather than on learning outcomes. The majority of these teachers in this study believed that the only way to increase the learning of pupils was to augment the quantity and quality of real teaching which involved modeling and keeping students focused and enthused. Many of these teachers believed that learning is something that students have to do themselves, and therefore, the initiative lies with the learner. Dewey (1933) also believed that the instructor was a leader who guides the ship, but the force that propels the ship must come from those who are learning. Dewey argued

that the more an instructor is conscious of the prior experiences of their students, of their plans, needs, and interests, the better he or she will appreciate the forces at work that need to be directed for the development of thoughtful learning habits. These teachers in this study believed that their instruction was effective because they believed that they kept their students fully engaged while they were teaching the lesson.

In a study by Shelton, Altwerger, and Jordan (2009), according to guidelines established by DIBELS, students at the end of Grade 3 who read fewer than 90 words per minute are at risk and need intensive or substantial intervention in reading instruction; students reading 80 to 95 words a minute are at some risk and need strategic or additional interventions in reading instruction, and those students reading 90 or more correct words per minute have reached the benchmark and are therefore considered low risk. Shelton et al. (2009) examined the data concerning students' oral reading fluency on the DORF and WCPM in relation to reading literature texts. Shelton et al. (2009) also reviewed students' miscue and retelling data to determine if the instructional recommendations made as a result of the DORF were in any way comparable to conclusions drawn from a more detailed analysis of the students' reading proficiency. Shelton et al. found that students' oral reading rates showed no connection to their reading comprehension.

The teachers in the Shelton et al. (2009) study grouped the students for instruction based on their speed of reading, placing the fastest readers in the instructional high group. Thus, grouping students together with similar reading abilities prevented the teachers from individualizing instruction to meet their varied needs. Although these samples used were small, so were the classrooms where teachers worked daily to improve reading

development for their students. Teachers also needed to know that the statistical claims made by the assessment results would hold true for their students. These conclusions suggested the need to reconsider not just the use of DIBELS but the entire practice of using measures of rate and accuracy to assess students' reading proficiency and comprehension. These teachers realized that it takes time to conduct single-minute assessments; however, these teachers also contended that if teachers were really interested in putting reading first, teachers should be willing to spend the time necessary to understand and respond to each student's unique strengths and needs (Shelton, et al., 2009).

*3. What are teacher perceptions about the relationship that needs to exist between the student and the teacher in order to improve student achievement in reading?*

The teachers in this study believed that providing a positive atmosphere for all of these students was very important in improving student achievement in reading. Teachers at both schools believed that improvement in student achievement in reading was possible because of the positive relationship that they had developed with their students. The majority of teachers in this study believed that their students were eager to participate in the lesson because they demonstrated positive behaviors such as sitting on the edge of their seats and waving their hands, hoping to give their responses to the questions.

*4. What other instructional and assessment strategies are used by the classroom teacher in addition to DIBELS in order to improve student achievement in reading?*

These teachers in this study used various instructional and assessment strategies in their classroom in addition to DIBELS to improve student achievement in reading. Some of these instructional strategies included monitoring and clarifying, activating prior knowledge, cooperative learning, independent reading, inquiry, investigation, and modes of reading. For example, modes of reading included reading aloud by the teacher, shared reading, reading guided by the teacher, and reading independently (Cooper, 1993). The instructional strategy of monitoring and clarifying, for example, was used by several teachers to help them individualize instruction for their students. The work of Vygotsky (1978) supports this idea of individualized instruction because he discovered that children of the same chronological age often learn at a different rate due to differences in their mental age. Vygotsky (1978) defined the zone of proximal development as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 86). Vygotsky argued that mental development often lagged behind physical development and that interaction with adults and peers in the learning process allowed new learning to be internalized and become a part of a child’s independent development. Therefore, the instructional strategy of monitoring and clarifying was used by many teachers in order to observe students in relation to characteristics of the text. This strategy helped teachers to determine whether the text was difficult or easy to read for individual students. In addition, students were also placed in various ability groups determined by the diagnostic results from the DIBELS fluency readings. Thus, teachers at

both schools believed, as Vygotsky did, that children learn at different rates and need individualized instruction in order to improve their reading skills.

The major assessment strategies used by these teachers in this study included the use of chapter and unit assessments because this was a requirement of the *SRA Open Court* reading materials. The majority of these teachers at both schools felt that these classroom assessments were effective because they used a variety of resources for measuring student performance, including formal teacher observations, formal assessments, and on-demand reading and writing performance evaluations. Data analysis indicated that these assessment strategies were valuable because they led to changes in classroom instruction. Changes in classroom instruction also came about when the assessment results were reviewed by these teachers. For example, if students were not found to be progressing in reading comprehension or vocabulary, teachers changed their instruction to fit these learning needs. Teachers also included specific interventions and workshop activities in their lesson plans to address the individual needs of those students struggling with reading.

Data analysis from Chapter 4 also indicated that these classroom teachers believed that most students were improving their reading skills, especially the ESL students. These materials used to differentiate instruction for ESL students were the *English Learner Support Guides and Activities* which included preteaching and reviewing of the *SRA Open Court* reading lessons as well as intervention guides and workbooks. Support for students who needed remediation was also provided as well as reteaching activities for those ESL students who needed a skill review during the lesson and



challenge activities for those ESL students who would benefit from a skill challenge during the lesson. Differentiated instruction support activities were also offered which were quick activities available at the end of the unit to address those ESL students who needed an additional review before moving to the next unit. These teachers in this study believed that they motivated their ESL students to learn, and these students were observed participating in the lessons with enthusiasm. According to Bruner, the role of teachers in developing intuitive and analytical students is to give students “as firm a grasp of a subject as we can, and to make him as autonomous and self-propelled a thinker as we can – one who will go along on his own after formal schooling has ended” (Bruner, 1961, p. 23).

Thus, teachers in this study incorporated many specific instructional and assessment strategies in addition to DIBELS in order to improve student achievement in reading. The frequent use of guided questions in their instructional lessons was an instructional strategy that teachers felt was particularly effective with students. Dewey (1933) also believed that questioning leads learners to think reflectively and process information in such a way that “thinking is inquiry, investigation, turning over, probing or delving into, so as to find something new or to see what is already known in a different light” (p. 265). In addition, teachers felt that the use of specific assessment strategies such as chapter and unit assessments was particularly effective in improving reading skills. General Outcome Measures (GOM) like DIBELS vary in significant ways from other formative assessments. The most common formative assessment that instructors utilize is assessment of a student’s progress in the curriculum, frequently called mastery

measurement (Fuchs & Deno, 1994). End-of-unit assessments measure all of these skills taught throughout the unit and is an example of mastery measurement. DORF is another example of a standardized assessment that is intended to identify students who might require further instructional assistance. Student success was measured by the sum number of words read correctly while reading a passage aloud for one minute. Test passages have undergone numerous readability estimates to ensure that text difficulty is appropriate for each grade level (Good & Kaminski, 2002). Furthermore, progressive academic benchmarks were provided for each grade that establishes the minimum levels of fluency proficiency. End-of-the-year benchmarks for the first, second, and third grades are 40, 90, and 110 correct words per minute, respectively (DIBELS, 2000-2003). The researcher cited that one of the major assessment strategies was the use of chapter and unit assessments by all teachers because this was a requirement of the *SRA Open Court* reading materials. These teachers felt that these classroom assessments were effective because they used a diversity of sources for assessing student performance, incorporating formal teacher observations, formal assessments, and on-demand reading and writing performance appraisals. The use of these multiple assessments provided a more inclusive picture of student progress and avoided the more limited picture of performance that results from using only one or two measures.

#### Recommendations for Action

The following recommendations for action are directed toward large urban school districts that need to improve reading achievement for elementary students at the intermediate level. The individuals responsible for implementing these recommendations

in these large urban school districts include school board members, the superintendent, assistant superintendents, principals, and department and/or grade level team leaders. These recommendations involve the topics of school curriculum, differentiated instruction, and cooperative learning.

For future studies, the first recommendation for action involves the school curriculum in reading. Currently the school curriculum in reading in most large urban school districts is directed by the state standards in reading which are mandated by the NCLB federal legislation that was passed in 2001. These reading standards should be prioritized and mapped so that it is easy to follow. Curriculum mapping is a procedure for gathering and documenting curriculum related data including specific skills, instructional procedures, and assessments used for every topic and for every grade level. Because every instructional program has its own curriculum, mapping is a device that helps instructors keep track of what has been taught and for what topics might be taught. Its purpose is to provide evidence of the connections among each section of the curriculum, and it is used as an investigation, communication, and scheduling device. Curriculum mapping is a valuable planning tool for teachers, helping them to begin with the end in mind and chart a course for the year.

The second recommendation for action involves differentiated instruction which should be considered as one of the key strategies to improving achievement for all students in reading, but especially for those pupils who have been recognized as being in jeopardy for not learning to read. For example, districts should consider adopting the *SRA Open Court* reading materials or a similar curriculum which would provide specific

routines to pre-teach skills and concepts that are critical to understanding each lesson. The *SRA Open Court* materials provide reteach lessons for those students who need extra practice on any of the lesson skills as well as intervention lessons which offer more intense support in order to bring students up to grade level. Differentiated instruction support activities are also provided for those students who require extra practice activities to help bolster skills and extend unit instruction. School districts should also encourage teachers to meet the individual needs of their students. Frequent instructional regrouping should be done to assist students in improving their reading skills. A few examples of these groups are ability groups, after-school tutoring, and small group instruction with a paraprofessional. In implementing differentiated instruction, the goal should be to meet the individual needs of students. There is also a need for teachers to be trained in how to carry out differentiated instruction in reading. Staff development should be provided through hands-on interactive and individual classroom demonstrations and coaching by experienced consultants. In addition, customized workshops during the school year, summer workshops and institutes, and staff development for administrators and support staff should also be provided by school districts in relation to reading standards, instruction, and assessment.

The third recommendation for action involves integrating cooperative learning strategies into the instructional reading lessons so that students can learn how to work together and share ideas as part of a group. According to Johnson, Johnson, and Smith (1998), cooperative learning is a teaching pattern in which groups of students work on structured tasks (i.e. homework assignments, experiments, book reports, or projects) that

follow the five criteria of positive interdependence, individual accountability, face-to-face interaction, appropriate use of collaborative skills, and regular self-assessment of team functioning. Johnson, Johnson, and Smith also noted that “many studies have shown that when correctly implemented; cooperative learning improves communication skills and self-confidence” (p.23). Cooperative learning involves a classroom organization that permits students to work collectively to accomplish their personal targets by working in groups with guidance from the teachers. This form of learning permits students to work collaboratively to help one another. This format also allows a student who is reading at a higher level to work with a student who is reading at a lower level.

In addition to the Johnson and Johnson model of cooperative learning, districts could also consider implementation of Slavin’s (2005) approach to learning because it is more individualized. Slavin’s Success for All model is based on the following five components: class presentation, teams, quizzes, individual improvement scores, and team recognition (Slavin, 2005).

Another recommendation for action would be to provide a curriculum to be suitable for teachers and students, so that there will be hope to ameliorate the achievement gap. This curriculum restructuring necessitates rethinking instructional reading programs so that they systematically attend to helping children develop comprehension and writing skills as well as letter knowledge, letter sound correspondence, and word-recognition skills. It also necessitates rethinking how much and in what way subjects like social studies and science are taught in the primary grades.

These instructional changes also imply the reform of early literacy assessment programs which are counted in terms of early literacy development. Basically, these instructional changes will encourage primary-grade educators to think comprehensively about what constitutes a good beginning in reading and writing, because a good ending is far more likely when there is a good beginning.

The last recommendation for action focuses on a study conducted by Wing-yi Cheng, Lam, and Chan (2008) on project-based learning, which is an instructional approach that originated from Dewey (1938), who argued for the importance of practical experience in learning. Project-based learning is a powerful teaching strategy that promotes self-directed learning. When utilizing the project-based learning approach, students work on academic tasks in small groups. Students need to develop skills that will ensure they are adequately equipped to participate fully in the knowledge-based economy of the 21<sup>st</sup> century. These skills include being able to know how to evaluate information critically and knowing how to work independently without close supervision as well as how to use creative thinking skills (Dfes, 2006).

#### Recommendations for Future Research

The recommendations for future research in relation to instructional reading programs at the elementary level in large urban school districts involve instructional approaches as well as professional development. Currently, there is some limited research on specific instructional approaches and professional development activities that have improved academic achievement in reading at the elementary level, K-5, particularly in

the primary grades (Adams, 1990). However, more research needs to be conducted at the intermediate level in Grades 3-5.

One recommendation for further research was that this case study could be replicated with other schools in different counties or states that have a high enrollment of Latino American students. Replication would provide data that could be compared with data from this case study, and these findings of those case studies could either confirm or negate the findings of this study.

Another recommendation for future research was tied to professional development for instructors. The single most important influence on a child's progress in school was a child's teacher. The implication was that the instruction that teachers provide to their students in their classrooms was of the utmost importance. For this reason, effective teacher training programs were necessary to improve this instruction. Effective teacher professional development can influence a teacher's instruction, which in turn can improve student achievement. Teachers need professional development in relation to reading comprehension instruction. This training should be centered on the investigation of research-based best practices that help students to develop strong reading comprehension skills. Teachers need to be provided with a combination of current and recommended instructional practices on reading comprehension and vocabulary development that are research based. Teachers also need time during these training sessions to analyze, confer, and assess the suitable application of these instructional strategies for the explicit and direct teaching of these skills in their classrooms. In addition, teachers need to learn to use specific instructional strategies when utilizing the

narrative and expository texts, including content area textbooks that will increase student comprehension. Teachers also need to learn instructional strategies that will help students monitor their own comprehension skills and how to use suitable interventions when comprehension is not achieved. This professional development would be suitable for all K-12 instructors, who need to help their students comprehend text in general, whether that text is a literary selection or a textbook. These training sessions should also focus on helping teachers learn to implement cognitive strategies that will promote critical thinking and the transfer of skills learned. Teachers also need to learn how to assess curriculum materials for all content areas and to develop or evaluate scoring guides for specific reading assignments. Training should also be provided in relation to the foundations of effective teaching with a focus on successful classroom instructional practices in reading, including established practices from research on efficient classroom and group management, efficient use of learning time, questioning and feedback skills, homework assignments, and strategies that support direct instruction.

The last recommendation for future research is related to a study done by Kuhn, Schwanenflugel, Morris, Woo, Mesinger, Sevick, Bradley, and Stahl (2006). The study concluded that, when compared to other aspects of reading, relatively little research has been conducted on fluency; thus, these researchers viewed this study as one that could establish basic understandings regarding a number of processes involved both in fluent reading and fluency instruction. Future research needs to focus more carefully on the role of intervention in helping students to do text reading, such as prosody, which deals with the rhythm of spoken language, including stress and intonation, or the study of these



patterns in reading. Although many researchers consider prosody to be a critical element in fluent reading (Erikson, 2003; Kuhn & Stahl, 2003; Rasinski & Hoffman, 2003), its role in the reading process in general and on comprehension in particular remains unclear (e.g., Levy, Abello, & Lysynchuk, 1997; Schwanenflugel, Hamilton, Kuhn, Wisenbaker, & Stahl, 2004). These researchers chose not to measure children's expressiveness for this reason. However, expressive reading is likely to connect to engagement and motivation (Morrow & Asbury, 2003; Optiz & Rasinski, 1998), so future research might consider changes in reading prosody as an additional outcome measure. One reason that educators should model expressive oral reading is to introduce learners to the enjoyment that comes with reading a variety of texts. When students can adopt the elements of fluent reading in their own rendering of texts, there is a higher likelihood that they will become engaged with print than would be the case if their own reading is not fluent. Thus, future research needs to consider the role of instructional practices in the classroom for enhancing reading fluency.

#### Implications for Social Change

These implications for social change in education in relation to this study are numerous, particularly in terms of maintaining academic success for all students and in terms of instructional leadership for all teachers in general. According to the report *Becoming a Nation of Readers* (1985), in the past, there had been very little direct reading instruction in most American classrooms, yet reading is considered a basic life skill. With the passage of the NCLB federal legislation in 2001, the emphasis on reading instruction at all grade levels, K-12, has increased dramatically. Therefore, these

implications for social change in relation to early reading instruction concerns the active involvement of teachers in research-based instruction that fosters the development of reading skills that students can utilize during a lifetime of learning.

In order to have an effective learning environment, teachers must carry forth the belief and mission of the school by remaining accessible to their students, providing a safe and orderly environment, involving parents and the community, and by encouraging professional learning communities among teachers. Adequate resources should be available for teachers in order to meet the individual needs of every student. More specifically, this study indicated that students will be most successful in reading through a balance of systematic and direct instruction in sound and word recognition, guided practice, and application of skills with extensive reading of decodable text and authentic literature.

Therefore, the implications for social change for teachers may be in relation to authentic professional development that occurs through collaboration rather than isolation. In addition, the implications of this study for improved reading instruction in large urban elementary schools in the United States are significant. Through modeling, administration and building leadership teams should introduce best practices within the classroom that can be used to support teachers who need assistance in providing individualized or differentiated instruction. Professional learning communities within the schools will help improve student academic success by improving instructional effectiveness in reading strategies. At both School A and School B, frequent staff development on specific topics such as early literacy indicators and reading interventions

provided support for the teachers in developing a strong instructional reading program in their classrooms. This type of staff development support needs to be expanded in the future.

Implications for social change also need to be considered in light of current research in the field of reading instruction. For example, Gillentine (2006) described current research on the impact of understanding early literacy development using the tools of narrative and reflection. The study considered impact in terms of teachers' beliefs, values, practice, and sense of professionalism. Under current reforms for school and system accountability, educators are constantly faced with an emphasis on reading achievement that overshadows other areas of learning, such as dispositions toward learning, aesthetics and the arts, physical education, social studies, and character development. Fear of such a single focus for teaching and learning is not unwarranted. Implementation of developmentally appropriate, learner-centered approaches commonly used in these other curriculum areas is most challenging for schools that have large percentages of disadvantaged children, because a mandated emphasis on basic skills in such schools usually leaves no room for incorporation of these other curricular areas with their developmentally appropriate approaches (Rust, 1999).

Keeping this in mind, Gillentine (2006) asked the following questions: How might professional development address such a situation of conflicting expectations? Is it possible to create and provide professional development activities that afford teachers the opportunity to collaboratively examine ways that children can learn effectively while meeting the literacy-oriented intentions of educational reforms? An approach to

professional development that incorporates reflection and collaboration and relies upon a broad base of expertise of the teachers may serve to close the gap between differing expectations (Wesley & Buysse, 2001; Buysse, Sparkman, & Wesley, 2003). Seeing the value in, and having knowledge of, a variety of approaches to teaching literacy skills are central to the education of young children. According to Dickinson (2002), evidence exists that the use of varied approaches to literacy instruction in early education is effective:

Taken as a whole, the research conducted over the past thirty years has amassed more than adequate evidence to support programmatic guidelines that clearly lay out the expectation that teachers provide children varied ways to engage in uses of print, guide children's engagement in literacy activities, and actively support their language growth (p. 27)

Dickinson would support the notion that teachers need to continue to engage students in a wide variety of reading activities in order to support their language development.

Thus, in order to be effective, professional development must encourage, among other things, collaboration, reflection, sharing, and enduring discussions about teaching and learning (Routman, 2002). Change is an essential part of professional development. If change is to be sustained, teachers must become actively engaged in all aspects of that change, either in creating or applying new strategies within their daily practice (Englert & Zhao, 2001). Smith (1995) stated that rather than relying on discussions of what schools should be achieving, "educators must talk of what people *do* and how they interact with each other" (p. 85). Dewey (1916), and later Schön (1983), described reflection as a

useful tool for teachers in guiding and changing their daily practice. Wesley and Buysse (2001) later noted that in early childhood settings, as educators' roles become more collaborative, they often overlook reflection within a community of learners as a way to both inform and reframe their practices. Reflection appears to be a useful learning tool for pre-service teachers in early childhood education at several stages of their development. Davis (2006) described reflection as a tool that pre-service teachers use to examine their learning by integrating knowledge and beginning to develop a more complex view of teaching. Freese (2006) recommended reflection as a means for pre-service teachers to identify inconsistencies between beliefs and practices, to learn to assume responsibility for actions and performance, and to develop open-mindedness. Furthermore, reflection supports the establishment of relationships between beginning early childhood teachers and the parents of their students (Sumsion, 1999). Further study of this issue would be helpful in determining how educators design, facilitate, and evaluate professional development experiences for teachers.

Finally, teachers must listen to their collective, professional voices in order to teach the public powerful ways to support early literacy development. Within supportive, collaborative communities of learning, teachers can begin to integrate what they know about learning in their own teaching context with the knowledge of other teachers and begin to share that broad knowledge in their communities, with one parent at a time, so that the best use may be made of that knowledge to inform public policies in education.

### Reflections of the Researcher

This section provides the researcher with an opportunity to share some personal reflections concerning the implementation of this study. Specifically, this researcher will describe what she learned from this study about how to conduct interviews, how to confront potential bias, and how teachers can be assisted in the process of reflecting on and improving their own instruction in the classroom.

In relation to the interviews that were used to collect data for this study, the researcher had the opportunity to personally meet with colleagues on an individual basis. Conducting the interviews for the study was an enjoyable experience for this researcher because meeting with each participant was interesting, and because every teacher was on time for his or her interview, camaraderie was easily established. One unique quality that the researcher attributed to her success in working with the participants was her relationship as a professional colleague and the fact that the participants were supportive of her doctoral journey. However, while transcribing the audio tapes from two different participants, the researcher realized that she may have been too participative, and she made a concerted effort thereafter to follow the interview protocol more closely so that each participant had a similar experience with the researcher.

Potential bias on the part of the researcher also became a factor that this researcher carefully considered. Currently, the researcher is a teacher at one of the schools where this case study was conducted and is a colleague of the participating teachers at School A. In fact, this researcher had worked with one Grade 4 teacher for seven years, with one Grade 4 and one Grade 3 teacher for four years, and with one

Grade 3 teacher for one year. The researcher believed that the possible effects of this relationship on these findings of this study needed to be considered. For instance, it was possible that this researcher underestimated the readiness of teachers to differentiate instruction to meet the needs of all the students. The researcher also believed that some student needs were not met because they were identified as ELL students. Even though the *SRA Open Court Workshop* materials afforded ELL students many opportunities for improving their proficiency in English in the bilingual classes, the researcher felt that ELL students did not have the opportunity of pairing with native English speaking students to share their experiences in this type of classroom. However, in a monolingual classroom setting, students were paired with native English speakers to share their experiences and provide new knowledge to other students. Interventions also required a readiness on the part of teachers to differentiate instruction by providing additional instructional support in decoding, comprehension, and language arts. In an effort to take this researcher bias about ELL students into consideration, the researcher had no direct interactions with these students during the data collection process.

During the implementation of this study, the researcher also observed that when teachers learned new concepts about teaching, they were able to process what they are learned through dialogue with their colleagues and through self-reflections. Research studies also support this idea that there is more likely to be a shift in thinking and beliefs about teaching when teachers are provided with opportunities to talk with colleagues and to reflect on their own instructional practices (Askew & Gaffney, 1999; Lyons & Pinnell, 1999; Lyons et al., 1993; and Rodgers, 2002). Newmann's (2001) research revealed that

effective leaders are innovative and bring in new programs, ideas, and instructional strategies that can improve teaching and learning in a coherent fashion. Effective leaders make sure that all stakeholders are involved to ensure lifelong productivity within the school. Teachers and students can achieve success through cautious preplanning, efficient classroom management and instruction, positive teacher-student interactions, attention to equity issues, and regular assessment (Cotton, 2000).

This researcher also learned that when teachers are given opportunities to reflect on what they are learning and how it is working in their classrooms, they continue to process, revise, and construct new ideas and beliefs about teaching. Academic success is maintained when a school district upholds a clear and shared focus on high standards of student learning (Petersen, 1999). Students are successful in reading when teachers are clear about the outcomes of the instructional reading lesson. When everyone knows where they are going, then the focus is on achieving a shared vision (Barth, 1990). Teachers can help direct the vision. The mission and vision of the school are developed from common beliefs and values, which in turn help in creating consistent direction for all stakeholders (Brescia, 2006). Schools with effective leadership should utilize a joint process by making sure that all teachers are involved in the learning process.

### Conclusion

In order to accurately answer the research questions for this study, it was necessary to explore the instructional reading curriculum and its related instructional and assessment strategies as well as the professional development activities that were provided for these teachers in order to improve reading



achievement for their students. Since this researcher was a participant-observer in the classrooms, this researcher was knowledgeable about the content of the instructional reading lessons. Data analysis supported these findings that teachers believed that the use of direct or explicit instruction along with the consistent use of specific instructional strategies such as early literacy indicators played a significant role in improving student achievement in reading. In particular, the use of the prescribed *SRA Open Court* reading materials incorporated phonemic awareness, systematic and explicit phonics instruction, fluency, vocabulary, and comprehension activities to ensure that students improved their reading skills. Thus, both the prescribed *SRA Open Court* reading materials and these instructional strategies implemented by these teachers including the use of early literacy indicators had a positive impact on student reading achievement.

All of these teachers in this study were intrinsically rewarded by improvement in the reading performance of many of their students; however, these findings of this study also suggest that this improvement in reading may be indirectly influenced by the teacher's professional development. In other words, the teacher's ability to influence reading instruction is indirectly a result of their desire to be adequately prepared to deliver high quality reading instruction. Teachers can influence student achievement in a positive way if they are adequately prepared through professional development to use appropriate instructional strategies. The challenge is to create professional educators who have the ability to reflect on their instructional practices and to become critical

consumers of educational research who are willing to explore their own endless opportunities for growth and development.

## REFERENCES

- Abbott, M., Walton, C., Tapia, Y., & Greenwood, C. R. (1999). Research to practice: A blueprint for closing the gap in local schools. *Exceptional Children*, 65, 339-352.
- Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Alexander, K. L., & Entwisle, D. R. (1988). Achievement in the first 2 years of school: Patterns and processes. *Monographs of the Society for Research in Child Development*, 53(2), Serial No. 218).
- Alexander, K. L., & Entwisle, D. R. (1996). Schools and children at risk. *Family school links: How do they affect educational outcomes? Monographs of the Society for Research in Child Development*, 56(2).
- Allington, R. L. (1983). Fluency: The most neglected goal in reading instruction. *The Reading Teacher*, 36, 556-561.
- Allison, P. D., & Liker, J. K. (1982). Analyzing sequential categorical data on dyadic interaction: A comment on Gottman. *Psychological Bulletin*, 91, 393-403.
- Ambe, E. B. (2007). Inviting reluctant adolescent readers into the literacy club: Some comprehension strategies to tutor individuals or small groups of reluctant readers. *Journal of Adolescent & Adult Literacy*, 50(8), 632-639.
- Anderson, W. T. (2003). *The next enlightenment*. New York: St. Martin's Press.
- Anderson, R. C., & Freebody, P. (1981). Vocabulary knowledge. *Reading research anthology: The why of reading instruction*. Navato, CA: Athena Press.
- Anderson, R. C., Hiebert, E. H., Scott, J. A., & Wilkinson, I. A. G. (1985). *Becoming a nation of readers*. Washington, DC: National Institute of Education.
- Applegate, M. D., Applegate, A. J., & Modia, V. B. (2009). "She's my best reader; she just can't comprehend": Studying the relationship between fluency and comprehension. *Reading Teacher*, 62(6), 512-521.
- Armbruster, B. B., Lehr, F., & Osborn, J. (2001). *Put reading first: The research building blocks for teaching children to read*. Washington, DC: Center for Improvement of Early Reading Achievement.

- Au, K. H. (2000). A multi-cultural perspective on policies for improving literacy achievement: Equity and excellence. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson & R. Barr (Eds.), *Handbook of reading research: 4*, 835-851. Mahwah, NJ: Erlbaum.
- Ausubel, D. P. (1968). *Educational psychology: A cognitive view*. New York: Holt, Rinehart, & Winston.
- Baker, L., & Sher, D. (2002). Beginning readers' motivation for reading in relation to parental beliefs and home reading experiences. *Reading Psychology*, 23, 239-268.
- Baker, S. & Smith, S. (2001). Linking school assessments to research-based practices in beginning reading: Improving programs and outcomes for students with and without disabilities. *Teacher Education and Special Education*, 24, 315-332.
- Ball, C. & Gettinger, M. (2009). Monitoring children's growth in early literacy skills: effects of feedback on performance and classroom environments. *Education and Treatment of Children*, 32(2), 189-212.
- Barger, J. (2003). *Comparing the DIBELS oral reading fluency indicator and the North Carolina end of grade reading assessment*. Asheville, NC: North Carolina Teacher Academy.
- Bashir, A. & Hook, P. E. (2009). Fluency: A key link between word identification and comprehension. *Language, Speech, and Hearing Services in Schools*, 40(2), 196-200.
- Becker, W. C. (1977). Teaching reading and language to the disadvantaged: What have we learned from the field research? *Harvard Educational Review*, 47, 518-543.
- Becker, W. C., & Engelmann, S. (1978). *Analysis of achievement data on six cohorts of low-income children from 20 school districts in the University of Oregon Direct Instruction Follow Through Model* (Follow Through Project, Tech. Rep. No. 78-1). Eugene, OR: University of Oregon.
- Becker, H. J., Ravitz, J. L., & Wong, Y. (1999). *Teacher and teacher-directed student use of computers and software*. Irvine, CA: Center for Research on Information Technology and Organizations, University of California, Irvine.
- Bereiter, C. & Bird, M. (1985). Use of thinking aloud in identification and teaching or reading comprehension strategy instruction. *Cognition and Instruction*, 2, 131-135.

- Berk, R. A. (1998). Review of the Stanford Achievement Test, Ninth Edition. *Mental Measurements Yearbook*, 13. Mental Measurements Yearbook database. Retrieved from Educational Resource Information Center Database.
- Blakey, D., & Moskowitz, D. (2002). Department of education invites applications for \$900 million in reading first grants. *The Education Report*, 5(1), 53-57.
- Bloomfield, D. C., & Cooper, B. S. (2003). Making sense of NCLB. *T.H.E. Journal* 30, 6-32.
- Bringuier, J. C. (1980). *Conversations with Jean Piaget*. Chicago: University of Chicago Press.
- Bogdan, R. C., & Biklen, S. K. (2003). *Qualitative research for education: An introduction to theories and methods (4th ed.)*. Boston: Allyn and Bacon.
- Boudah, D. J., & Knight, S. L. (1999). Creating learning communities of research and practice: Participatory research and development. In D. M. Byrd & D. J. McIntyre (Eds.), *Research on professional development schools: Teacher education yearbook VII*. Thousand Oaks, CA: Corwin Press.
- Boudah, D. J., Logan, K. R., & Greenwood, C. R. (2001). The research to practice projects: Lessons learned about changing teacher practice. *Teacher Education and Special Education*, 24, 290-303.
- Bowey, J. A. (1995). Socioeconomic status differences in preschool phonological sensitivity and first grade reading achievement. *Journal of Educational Psychology*, 87(3), 476-487.
- Brooks, J. G. (2004). Constructivism as a paradigm for teaching and learning. Educational Broadcasting Corporation. Retrieved from Educational Resource Information Center Database.
- Brooks, J., & Brooks, M. (1993). *In search of understanding: The case for constructivist Classrooms*. Alexandria, VA: ASCD
- Bruck, M. (1992). Persistence of dyslexics' phonological awareness deficits. *Developmental Psychology*, 28, 874-886.
- Brulle, A. R. (2005). What can you say when research and policy collide? *Phi Delta Kappan*, 86(6), 433.

- Bruner, J. S. (1966). *Toward a theory of instruction*. Cambridge, MA: Harvard University Press.
- Bruner, J. S. (1961). The act of discovery. *Harvard Educational Review*, 31(1), 21-32.
- Bruner, J. (1960). *The process of education*. Cambridge, MA: Harvard University Press.
- Bruner, J. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.
- Bryk, A. S., Raudenbush, S. W., Cheong, Y. K., & Congdon, R. (2000). *HLM5: Hierarchical linear and nonlinear modeling*. Chicago: Scientific Software International.
- Burns, M., Griffin, P., & Snow, C. (1999). *Starting out right: A guide to promoting children's reading success*. Washington, DC: National Academy Press.
- Buck, J. & Torgesen, J. (2003). *The relationship between performance on a measure of oral reading fluency and performance on the Florida comprehensive assessment test*. (FCRR Technical Report #1) Tallahassee, FL: Florida Center for Reading Research.
- Butzin, S. M. (2004). Stop the insanity! It takes a team to leave no child behind. *Phi Delta Kappan*, 86(4), 307.
- Campus Compact. (2002). *Federal funding resources for community services: America Reads*. Brown University, National Campus Compact Web site. Retrieved from Educational Resource Information Center Database.
- Carnine, D. (1997). Bridging the research-to-practice gap. *Exceptional Children*, 63, 513-521.
- Carnine, D.W. (2000). *A consortium for evidence in education (CEE)*. Unpublished manuscript. Upper Saddle River, NJ: Merrill/Prentice-Hall.
- Castellan, N. J. (1979). The analysis of behavioral sequences. In R. B. Cairns (Ed.), *The analysis of social interactions: Methods, issues, and illustrations*. Hillsdale, NJ: Erlbaum.
- Catts, H.W., Hogan, T. P., Adolf, S. M., & Barth, A. E. (2003). *The simple view of reading: Changes over time* (Language and Reading Disorders Laboratory at the University of Kansas). Retrieved from Educational Resource Information Center Database.

- Chall, J. S., Jacobs, V. A., & Baldwin, L. E. (1990). *The reading crisis: Why poor children fall behind*. Cambridge, MA: Harvard University Press.
- Chard, D. J., & Kameenui, E. J. (2000). Struggling first-grade readers: The frequency and progress of their reading. *Journal of Special Education, 34*, 28-38.
- Clarke, S. (2009). Using curriculum-based measurement to improve achievement. *Principal, 30*-33. Retrieved from Education: Sage Database.
- Clay, M. M. (1991a). *Becoming literate: The construction of inner control*. Portsmouth, NH: Heinemann.
- Clay, M. M., Flood, J., Lapp, D., Squire, J. R., & Jensen, J. M. (2003). Jensen (Eds.), *Handbook of research in teaching the English language arts, 2<sup>nd</sup> ed.* Mahwah, NJ:Lawrence Erlbaum.
- Cognition and Technology Group at Vanderbilt (1991). Some thoughts about constructivism and instructional design. *Educational Technology, 39*(9), 16-168.
- Coleman, M. R., Buysse, V., & Neitzel, J. (2006). *Response and recognition: An early intervening system for young children at-risk for learning disabilities. Full report*. Chapel Hill, NC: The University of North Carolina at Chapel Hill, FPG Child Development Institute.
- Cook, R. G. (2003). *The utility of DIBELS as a curriculum based measurement in relation to reading proficiency on high stakes tests*. Unpublished masters thesis, Marshall University, West Virginia.
- Conderman, G., & Strobel, D. (2006). Problem solving with guided repeated oral reading instruction. *Intervention in School & Clinic, 42*(1), 34-39.
- Connor, C. M., Morrison, F. J., & Katch, L. E. (2004). Beyond the reading wars: Exploring the effect of child-instruction interactions on growth in early reading. *Scientific Studies of Reading, 8*(94), 305-336.
- Connor, C. M., Morrison, F. J., & Slominski, L. (2006). Preschool instruction and children's emergent literacy growth. *Journal of Educational Psychology, 98*(4), 665-689.
- Costa, A. & Liebmann, R. (1995). Process is as important as content. *Educational Leadership, 52*(6), 23-24.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.

- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches (2nd ed.)*. Thousand Oaks, CA: Sage.
- Cunningham, A. E., & Stanovich, K. E. (1997). Early reading acquisition and its relationship to reading experiences and ability 10 years later. *Development Psychology, 33*(60), 934-945.
- Davidson, M., & Myhre, O. (2003). Measuring reading at grade level. *Educational Leadership, 57*(5), 25-28.
- de Jager, B., Jansen, M., & Reezigt, G. (2005). The development of metacognition in primary school learning environments. *School Effectiveness and School Improvement, 16*(2), 179-196.
- Deno, S. L. (1985). Curriculum-based measurement: The emerging alternative. *Exceptional Children, 52*, 219-232.
- Deno, S. L. (1997). Whether thou goest . . . perspectives on progress monitoring. In J. W. Lloyd, E. J. Kameenui, & D. Chard (Eds.), *Issues in educating students with disabilities, 16*, 213-235.
- Deno, S. L. & Fuchs, L. S. (1987). Developing curriculum-based measurement systems for databased special education problem solving. *Focus on Exceptional Children, 19*(8), 1-15.
- Deno, S. L., Fuchs, L. S., Marston, D., and Shin, J. (2001). Using curriculum-based measurement to establish growth standards for students with learning disabilities. *School Psychology Review, 30*(4), 507-524.
- Deno, S. L. & Mirkin, P. K. (1977). Data-based program modification: A manual. *School Psychology Review, 26*, 554-574.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (1994). *Handbook of qualitative research*. Thousand Oaks, CA: Sage.
- Desimone, L. (2001). Linking parent involvement with student achievement: Do race and income matter? *The Journal of Educational Research, 93*(1), 11-30.
- Dewey, J. (1933/1998) *How we think*. Boston, MA: Houghton Mifflin Company.
- Dewitz, Peter, Dewitz, Pamela (2003). They can read the words, but they can't



understand: Refining comprehension assessment: Comprehension problems can be difficult to detect and treat. Here are some suggestions for catching these problems and addressing students shortcomings. *The Reading Teacher*, 56(5), 422-429.

DIBELS Website, Data systems 1, Retrieved from Educational Resource Information Center.

Dole, J. A. (2004). The changing of the reading specialist in school reading reform. *The Reading Teacher*, 57, 462-471.

Donat, D. J. (2006). Reading their way: A balanced approach that increases achievement. *Reading and Writing Quarterly*, 22(4), 305-323.

Duncan, L.G., & Seymour, P.H. (2000). Socio-economic differences in foundation-level literacy. *British Journal of Psychology*, 91, 145-166.

Duke N. K., & Pearson, P. D. (2002). Effective practices for developing reading Comprehension: Early literacy instruction in the climate of No Child Left Behind, *The Reading Teacher*, 2004, 57(4).

Durkin, D. (1979). What classroom observations reveal about reading comprehension Instruction. *Reading Research Quarterly*, 14, 481-533.

Durkin, D. (1989). *Teaching them to read*. Boston, MA: Allyn and Bacon.

*Dynamic Indicators of Basic Early Literacy Skills* (2000-2003). Retrieved from Educational Resource Information Center.

Edmondson, J. (2004). Reading policies: Ideologies and strategies for political engagement. *The Reading Teacher*, 57, 418-428.

Elbaum, B., Vaughn, S., Hughes, M. T., Moody, S. W., & Schumm, J. S. (2000). How reading outcomes for students with disabilities are related to instructional grouping formats: A meta-analytic review. In R. Gersten, E. P. Schiller, & S. Vaughn (Eds.), *Contemporary special education research: Syntheses of the knowledge base on critical instructional issues*. Mahwah, NJ: Erlbaum.

Elliott, J., Lee, S., & Tollefson, N. (2001). A reliability and validity study of the Dynamic Indicators of Basic Early Literacy Skills. *School Psychology Review*, 30, 33-49.

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

- Engelmann, S. (1998). *Vita*. Eugene, OR: College of Education, University of Oregon.
- Francis, D. J., Fletcher, J. M., Shaywitz, B. A., Shaywitz, S. E., Rourke, B. P. (1996). Defining learning and language disabilities: Conceptual and psychometric issues with the use of IQ tests. *Language, Speech, and Hearing Services Schools*, 27, 132-143.
- Felton, R. H. & Pepper, P. P. (1995). Early identification and intervention an intervention of phonological deficits in kindergarten and early elementary children at risk for reading disability. *School Psychology Review*, (24), 405-414.
- Ferrara, S. L. N. (2005). Reading fluency and self-efficacy: A case study. *International Journal of Disability Development and Education*, 52 (3), 215-231.
- Firestone, W. A. (1987). Meaning in method: The rhetoric of quantitative and qualitative research. *Educational Researcher*, 16, 16-21.
- Foorman, B. (2007). Primary prevention in classroom reading instruction. *Teaching Exceptional Children*, 39(5), 24-30.
- Fountas, I. C. & Pinnell, G. S. (1996). *Guided reading: Good first teaching for all children*. Portsmouth, NH: Heinemann.
- Francis, D. J. (1996). Developmental Lag versus Deficit Models of Reading Disability: A Longitudinal, Individual Growth Curves Analysis. *Journal of Educational Psychology*, 88(1), 3-17.
- Fuchs, L. S. & Deno, S. L. (1994). Must instructionally useful performance assessment be based in the curriculum? *Exceptional Children*, 6(1), 15-24.
- Fuchs, D., & Fuchs, L. S. (2006). Introduction to response to intervention: what, why, and how valid is it? *Reading Research Quarterly*, 41(1), 93-99.
- Fuchs, D., & Fuchs, L. S. (2001). One blueprint for bridging the gap: Project PROMISE: Practitioners and researchers orchestrating model interventions. *Teacher Education and Special Education*, 24, 304-314.
- Fuchs, L. S., & Fuchs, D. (1986). Linking assessment to instructional intervention: An overview. *School Psychology Review*, 15, 318-323.
- Fuchs, L. S., & Fuchs, D. (1998). General educators' instructional adaptation for students

- with learning disabilities. *Learning Disability Quarterly*, 21, 23-33.
- Fuchs, L. S., Fuchs, D., Hamlett, C. L., & Bentz, J. (1994). Classwide curriculum-based measurement: Helping general educators meet the challenge of student diversity. *Exceptional Children*, 60, 518-537.
- Fuchs, L.S., Fuchs, D., & Maxwell, L. (1988). The validity of informal reading comprehension measures. *Remedial and Special Education*, 9, 20-28.
- Gersten, R., Morvant, M., & Brengelman, S. (1995). Close to the classroom is close to the bone: Coaching as a means to translate research into classroom practice. *Exceptional Children*, 62, 52-67.
- Gillentine, J. (2006). Understanding early literacy development: The impact of narrative and reflection as tools within a collaborative professional development setting. *Journal of Early Childhood Teacher Education*, 27, 343-362.
- Gordinier, C. & Foster, K. (2004). What stick is driving the Reading First loop? *Childhood Education*, 81(2), 94-100.
- Good, R. H. & Kaminski, R. A. (2002). *DIBELS Oral Reading Fluency Passages for First through Third Grades (Technical Report No. 10)*. Eugene, OR: University of Oregon.
- Good, R. H., & Kaminski, R. A. (2005). *Dynamic indicators of basic early literacy skills*. Retrieved from Educational Information Resource Center Database.
- Good, R.H. & Jefferson, G. (1998). *Contemporary perspectives on curriculum based measurement validity*. New York: Guilford.
- Good, R. H., Simmons, D., & Kameenui, E. J. (2001). The importance and decision making utility of a continuum of fluency-based indicators of foundational reading skills for third-grade high-stakes outcomes. *Scientific Studies of Reading*, 5, 257-288.
- Good, R. H., Simmons, D., & Smith, S. (1998). Effective academic interventions in the United States: Evaluating and enhancing the acquisition of early reading skills. *School Psychology Review*, 27(1), 45-56.
- Good, R. H., & Kaminski, R. (2000). *Dynamic indicators of basic early literacy skills (DIBELS)*. Retrieved from Educational Information Resource Center Database.
- Gough, J.B., & Tunner, W.E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education*, 7(1), 6-10.

- Greenwood, C. R., & Abbott, M. (2001). The research to practice gap in special education. *Teacher Education and Special Education, 24*, 276-289.
- Greenwood, C. R., & Maheady, L. (1997). Measurable change in student performance: Forgotten standard in teacher preparation? *Teacher Education and Special Education, 20*, 265-275.
- Griffiths, A. J., VanDerHeyden, A. M., Skokut, M., & Lilles, E. (2009). Progress monitoring in oral reading fluency within the context of RTI. *School Psychology Quarterly, 24*(1), 13-23.
- Grossen, B. (Ed.) (2001). *Overview: The story behind project follow-through*. Retrieved from Educational Information Resource Center.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*. Thousand Oaks, CA: Sage.
- Hamilton, C. & Shinn, M. R. (2003). Characteristics of word callers: An investigation of the accuracy of teachers' judgments of reading comprehension and oral reading skills, *School Psychology Review, 32*(2), 228-241.
- Harcourt Educational Measurement. (2003). *Stanford Achievement Test, Tenth Edition, Spring Technical Data Report*.
- Harnad, S. (1982). Neoconstructivism: A unifying theme for the cognitive sciences. In T. Simon & R. Scholes (Eds.), *Language, mind and brain*. Hillsdale NJ: Erlbaum. Retrieved from Educational Information Resource Center Database.
- Hasbrouck (1998). Reading fluency: Principles for instruction and progress monitoring. *Professional Development Guide*. Austin, TX: Texas Center for Reading and Arts, University of Texas at Austin.
- Hatch, J. A. (1985). The quantoids versus the smooshes: Struggling with methodological rapprochement. *Issues in Education, 3*, 158-167.
- Hay, I., & Fielding-Barnsley, R., (2009). Competencies that underpin children's transition into early literacy. *Australian Journal of Language and Literacy, 32*(2), 148-162.
- Haycock, K. (2003). Closing the Disparity Gap. *Teacher Librarian, 30*(4), 38.
- Hayes, L. L., & Robnolt, V. J. (2007). Data-driven professional development: The

- professional development plan for a reading excellence act school. *Reading Research and Instruction*, 46(2), 95-119.
- Heath, S.B. (1991). The sense of being literate: Historical and cross-cultural features. *Instructing students who have literacy problems*. Upper Saddle Back River, NJ: Pearson Education.
- Herriott, R. E., & Firestone, W. A. (1983). Multisite qualitative policy research: Optimizing description and generalizability. *Educational Researcher*, 12, 14-19.
- Hintze, J.M., Ryan, A.L., & Stoner, G. (2002). *Concurrent validity and diagnostic accuracy of the Dynamic Indicators of Basic Early Literacy Skills and the Comprehensive Test of Phonological Processing*. Amherst, MA: University of Massachusetts.
- Houtveen, T. & Van De Grift, W. (2007). Reading instruction for struggling learners. *Journal of Education for Students Placed at Risk*, 12(4), 405-424.
- Huck, S.W. (2004). *Reading statistics and research*. Boston, MA: Pearson.
- Illinois School Report Card (2007). Retrieved from Educational Information Resource Center Database.
- Individuals with Disabilities Education Improvement Act of 2004, (IDEA), Pub. L. No. 108-466 (2004).
- Jenkins, J.R., & Dixon, R. (1983). Vocabulary learning. *Contemporary Educational Psychology* 8, 237-260.
- Jenkins, J. R., Graff, J. J., & Miglioretti, D. L. (2009). Estimating reading growth using intermittent CBM progress monitoring. *Council for Exceptional Children*, 75(2), 151-163.
- Johnson, D. W., Johnson, R. T., & Smith, K. A. (1998). Maximizing instruction through cooperative learning. *ASEE Prism*, 8(2), 24-28.
- Johnson, J., & Christensen, L. (2004). *Educational research: Quantitative, qualitative, and mixed approaches (2<sup>nd</sup> ed.)*. Boston: Pearson Education.
- Juel, C. (1991). Beginning reading. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research*. New York: Longman.
- Juel, C. (1988). Learning to read and write: A longitudinal study of 54 children from first through fourth grades. *Journal of Educational Psychology*, 80, 437-447.

- Kame'enui, E. J., Carnine, D. W., Dixon, R. C., Simmons, D. C., & Coyne, M. D. (2002). *Effective teaching strategies that accommodate diverse learners (2nd ed.)*. Upper Saddle River, NJ: Prentice Hall.
- Kaminski, R., & Good, R. (1996). *Dynamic indicators of basic early literacy skills (DIBELS)*. Eugene, OR: University of Oregon.
- Katz, L. A., Stone, C., Stone, C. A., & Carlisle, J. F., Corey, D. L., & Zeng, J. (2008). Initial progress of children identified with disabilities in Michigan's Reading First schools. *Exceptional Children, 74*(2), 235-256.
- Kauerz, R. (2002). *No child left behind policy brief: Literacy*. Denver, CO: Education Commission of the States.
- Knutson, N., & Shinn, M. (1991). Curriculum-based measurement: Conceptual underpinnings and integration into problem solving assessment. *Journal of School Psychology, 29*, 371-393.
- Kourea, L., Cartledge, G., & Musti-Rao, S. (2007). Improving the reading skills of urban elementary students through total class peer tutoring. *Remedial and Special Education, 28*(2), 95-107.
- Kozol J. (1991). *Savage inequalities: Children in America's schools*. New York: Harper.
- Kuhn, M. R., Schwanenflugel, P. J., Morris, L. M., Woo, D. G., Meininger, E. B., Sevick, R. A., Bradley, B. A., & Stahl, S. A. (2006). Teaching children to become fluent and automatic readers. *Journal of Literacy Research, 38*(4), 357-387.
- Kuhn, T. S. (2000). *The road since structure*. Chicago: University of Chicago Press.
- Kuhn, M. (2004). Helping students become accurate, expressive readers: Fluency instruction for small groups: Repeated reading and wide-reading approaches were evaluated for their usefulness in improving fluency. *The Reading Teacher, 58*(4), 338-347.
- Laberge, D., & Samuels, S. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology, 6*, 293-323.
- Larrotta, C., Gainer, J. (2008). Text matters: Mexican immigrant parents reading their world. *Multicultural Education, 16*(2), 45-48.
- Learning First Alliance. (2000). *Every child reading: A professional development guide*. Alexandria, VA: ASCD.

- LeCompte, M. D., & Schensul, J. J. (1999). *Designing and conducting ethnographic in research*. Walnut Creek, CA: AltaMira Press.
- Liberman, I.Y., & Liberman, A.M. (1992). Whole language versus code emphasis: Underlying assumptions and their implications for reading instruction. In B.A. Murray (Ed.) *Gaining alphabetic insight: Is phoneme manipulation skill or identity knowledge causal?* 461-475.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Logan, K. R., Bakeman, R., & Keefe, E. B. (1997). Effects of instructional variables on engaged behavior of students with disabilities in general education classrooms. *Exceptional Children*, 63, 481-498.
- Logan, K. R., & Stein, S. S. (2001). The research lead teacher model. *Teaching Exceptional Children*, 3(3), 10-15.
- Long, D. L. & Lea, R. B. (2005). Have we been searching for meaning in all the wrong places? Defining the “search after meaning” principle in comprehension. *Discourse Processes*, 39(2&3), 279-298.
- Lyon, R. G. (1999). *Education research: Is what we don't know hurting our children* Statement to the House Science Committee Subcommittee on Basic Research, U.S. House of Representatives. Retrieved from Educational Information Resource Center Database.
- Lyons, C. A., Pinnell, G. SA., & Deford, D. E. (1993). *Partners in learning: Teachers and children in reading recovery*. New York: Teachers College Press.
- Mahoney, M. J. (1991). *Human change processes*. New York: Basic Books.
- Mahoney, M. J. (2003). *Constructive psychotherapy*. New York: Guilford.
- Mahoney, M. J. (2004). *Scientist as subject: The psychological imperative*. Clinton Corners, NY: Percheron Press.
- Manzo, K. K. (2002). Department of education to hike oversight of reading grants. *Education Week*, 22, 5.
- Marston, D.B. (1989). A curriculum-based measurement approach to assessing academic performance: What is it and why do it? In M.R. Shinn (Ed.), *Curriculum-based measurement: Assessing special children*. New York: Guildford Press.

- McCallion, G. (2001). *The reading excellence act: Implementation status and issues*. Washington, D.C.: Congressional Research Service Report for Congress.
- McCormick, S. (2003). *Instructing students who have literacy problems*. Upper Saddle Back River, NJ: Pearson Education.
- McGill-Franzen, A. (2000). Policy and instruction: What is the relationship? In M. Kamil, P. Mosenthal, D. Pearson, & R. Barr (Eds), *Handbook of reading research*. Mahwah, NJ: Lawrence Erlbaum.
- McKenna, M. K. (2003). *Assessing reading comprehension: The relation between DIBELS Oral Reading Fluency, DIBELS Retell Fluency and Oregon State Assessment scores*. Unpublished master's thesis, University of Oregon.
- McKeown, M/G., Beck, I.L., Omanson, R.C., & Perfetti C.A. (1983). The effects of long term vocabulary instruction on reading comprehension: A replication. *Journal of Reading Behavior*, 15(1), 3-18.
- Merriam, S. B. (1988). *Case study research in education: A qualitative approach*. San Francisco, CA: Jossey-Bass.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.
- Miller, J. & Schwanenflugel, P. J. (2008). A longitudinal study of the development of reading prosody as a dimension of oral reading fluency in early elementary school children. *Reading Research Quarterly*, 43(4), 336-354.
- Moats, L. (2003). *LETRS: Language essentials for teachers of reading and spelling, Book 1*. Longmont, CO: Sopris West Educational Services.
- Molfese, V.J., Modglin, A., & Molfese, D.L. (2003). The role of environment in the development of reading skills: A longitudinal study of preschool and school-age measures. *Journal of Learning Disabilities*, 36(1), 59-67.
- Moscovitch, E. (2004). *Evaluation of the Alabama Reading Initiative*. Retrieved from Educational Resource Information Center Database.
- Murray, B.A. (1998). Gaining alphabetic insight: Is phoneme manipulation skill or identity knowledge causal? *Journal of Educational Psychology*, 90(3). 461-475.
- Nagy, W.E., Anderson, R.C., & Herman, P.A. (1987). Learning words from context during normal reading. *American Educational Research Journal*, 24, 237-270.



- Nagy, W.E., Herman, P.A., & Anderson, R.C. (1987). Learning words from context. *Reading Research Quarterly*, 20, 233-253.
- National Institute for Literacy (2005). Retrieved from Education: Sage Database.
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups*. Bethesda, MD: National Institute of Child Health and Human Development.
- National Research Council. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- National Assessment of Educational Progress (1999). *Report card for the nation and the states*. Washington D.C.: National Center for Education Statistics.
- NEA Today Online. (2002). *Congress passes sweeping education law*. Retrieved from Educational Resource Information Center Database.
- Neimeyer, R. A., & Mahoney, M. J. (Eds.)(1995). *Constructivism in psychotherapy*. Washington, DC.: American Psychological Association.
- Nelson, J. M. (2008). Beyond correlational analysis of the dynamic indicators of basic early literacy skills (DIBELS): A classification validity study. *School Psychology Quarterly*, 23(4), 542-552.
- Nilsson, N. L. (2008). A critical analysis of eight informal reading inventories. *The Reading Teacher*, 6 (7), 526-536.
- No Child Left Behind Act of 2001, Pub. L. No. 107-110, § 115 Stat. 1425 (2002). Washington, DC: U.S. Department of Education.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Pearson, P. T. (1987). *K-8 reading series*. Morristown, NJ: Silver Burdet Ginn.

- Piaget, J. (1972). *The psychology of the child*. New York: Basic Books.
- Piaget, J. (1962). *Play, dreams and imitation in childhood*. New York: W. W. Norton & Company.
- Piaget, J. (1983). Piaget's Theory. In P. Mussen (Ed.), *Handbook of child psychology* (4<sup>th</sup> ed., 1). New York: Wiley.
- Pinnell, G.S., Pikulski, J.J., Wixson, K.K., Campbell, J.R., Gough, P.B., & Beatty, A.S. (1995). *Listening to children read aloud*. Washington DC: Office of Educational Research and Improvement.
- Pressley, M. (1992). *Reading instruction that works: The case for balanced teaching*. New York: Guilford Press.
- Rasinski, T., Rupley, W. H., & Nichols, W. D. (2008). Two essential ingredients: Phonics and fluency getting to know each other. *Reading Teacher*, 62(3), 257-260.
- Rasinski, T.V. (2000). Speed does matter in reading. *The Reading Teacher*, 52(2), 146-151.
- Rasinski, T. (2006). Reading fluency instruction: Moving beyond accuracy, automaticity, and prosody. *The Reading Teacher*, 59 (7), 704-706.
- Ratekin, N. (1978). A comparison of reading achievement among three racial groups using standard reading materials. In S. McCormick (Ed.), *Instructing students who have literacy problems* ( 44). Upper Saddle River, NJ: Pearson Education.
- Reading Excellence Act of 1998*. (2002). Pub. L. No. 105-277, div. A, Sec. 101 (f) (title VIII), 112 Stat. 2681-337, 2681-391 et. Seq. Washington, DC: Department of Education.
- Reading Excellence Act of 1998*. (2003). Pub. L. No. 105-277, div.A, Sec. 10 (f) (title VIII), 112 Stat. 2681-337, 2681-391 et. Seq. Washington, DC: Department of Education.
- Reis, S., M., Eckert, R. D., McCoach, D. B. Jacobs, J. K., & Coyne, M. (2008). Using enrichment reading practices to increase reading fluency, comprehension, and attitudes. *Journal of Educational Research*, 101(5), 299-315.
- Riedel, B. W. (2007). The relation between DIBELS, reading comprehension, and vocabulary in urban first-grade students. *Reading Research Quarterly*, 42(4), 546-567.

- Ritchey, K.D. (2004). From letter names to word reading: The development of reading in kindergarten. *Reading Research Quarterly*, 39(4), 374-376.
- Robbins, C., & Ehri, L.C. (1994). Reading storybooks to kindergartners helps them learn new vocabulary words. *Journal of Educational Psychology*, 86, 54-64.
- Rogosa, D. R., & Willett, B. (1985). Understanding correlates of change by modeling individual differences in growth. *Psychometrica*, 50, 203-228.
- Scarborough, H.S., & Brady, S.A. (2002). Toward a common terminology for talking about speech and reading: A glossary of the .phon. words and some related terms. *Journal of Literary Research*, 34(3), 299-336.
- Schwanenflugel, P. J., Meisinger, E. B., & Wisenbaker, J. M. (2006). Become a fluent and automatic reader in early elementary school years. *Reading Research Quarterly*, 41(4), 496-522.
- Senechal, M., Fevre, J., Thomas, E.M., & Daley, K.E. (1998). Differential effects of home literacy experiences on the development of oral and written language. *Reading Research Quarterly*, 33, 96-116.
- Shaw, D., Shaw, R. (2002). *DIBELS Oral Reading Fluency-Based Indicators of Third Grade Reading Skills for Colorado State Assessment Program (CSAP)*. (Technical Report). Eugene, OR: University of Oregon.
- Shaywitz, S. E., Fletcher, J. M., Holahan, J. M., Schneider, A. E., Marchione, K. Stuebing, k. k., (1999). Persistence of dyslexia: The Connecticut longitudinal study of adolescence. *Pediatrics*, 104, 1351-1359.
- Shelton, N. R., Altwerger, B., & Jordan, N. (2009). Does DIBELS put reading first? *Literacy Research and Instruction*, 48(2), 137-148.
- Shinn, M. R. (Ed.). (1989). *Curriculum-based measurement: Assessing special children*. New York: Guildford Press.
- Simmons, D. C., & Kame'enui, E. J. (Eds.). (1998). *What reading research tells us about children with diverse learning needs: Bases and basics*. Mahwah, NJ: Lawrence Erlbaum.
- Simmons, D. C., Kuykendall, K., King, K., Cornachione, C., & Kameenui, E. J. (2000). Implementation of a schoolwide reading improvement model: "No one every told us it would be this hard!" *Learning Disabilities Research and Practice*, 15, 92-100.

- Slavin, R. (2005). *Cooperative Learning*. Retrieved from Educational Resource Information Center Database.
- Sloat, E., Beswick, J., & Willms, J. (2007). Using early literacy monitoring to prevent reading failure. *Phi Delta Kappan*, 88(7), 523-529.
- Smith, C. R. (1998). From Gibberish to Phonemic Awareness Effective Decoding Instruction. *Teaching Exceptional Children*, 30(6), 20-25.
- Snow, C. E., Burns, M. S., & Griffin, P. (1998). Preventing reading difficulties in young children. Washington, DC: National Research Council, National Academy Press.
- Spears-Swelling, L. (2007). The research-practicedivide in beginning reading. *Theory Into Practice*, 46(4), 301-308.
- Speece, D.L., Mills, C., Ritchey, K.D., & Hamilman, E. (2003). Initial evidence that letter fluency tasks are valid indicators of early reading skill. *Journal of Special Education*, 36, 223-233.
- Spring, J. (1993). *Conflicts of interests: The politics of American education*. New York: Longman.
- Series Editor? (2001). *SRA Open Court Reading*. Columbus, OH: McGraw Hill.
- Stahl, S.A., & Fairbanks, M.M. (1986). The effects of vocabulary instruction: A model-based meta-analysis. *Review of Educational Research*, 56(1), 72-110.
- Stake, R.E. (1994). Casae study. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research*. Thousand Oaks, CA: Sage
- Stake, R.E. (1995). *The Art of Case Study Research*. Thousand Oaks, CA: Sage
- Stecker, P. M., Lembke, E. S., & Foegen, A. (2008). Using Progress-Monitoring Data to Improve Instructional Decision Making. *Preventing School Failure*, 52(2), 48-58.
- Strauss, A. L., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory (2nd ed.)*. Thousand Oaks, CA: Sage.
- Strauss, S. L., Goodman, K. S., & Paulson, E. J. (2009). Brain research and reading: How emerging concepts in neuroscience support a meaning construction view of the reading process. *Educational Research and Review*, 4(2), 021-033.

- Taylor, D. B., Mraz, M., & Nichols, W. D. (2009). Using explicit instruction to promote vocabulary learning for struggling readers. *Reading and Writing Quarterly, 25* (2-3), 205-220.
- Teale, W. H., Paciga, K. A., & Hoffman, J. L. (2007). Beginning reading instruction in urban schools: the curriculum gap ensures a continuing achievement gap. *The Reading Teacher, 61*(4), 344-348.
- Therrien, W.J., & Hughes, C. (2008). Comparison of repeated reading and question generation on students' reading fluency and comprehension. *Learning Disabilities: A Contemporary Journal, 6*(1), 1-16.
- Thomas, M. S. C., Annaz, D., & Ansari, D. (2009). Using developmental trajectories to understand developmental disorders. *Journal of Speech, Language, and Hearing Research, 52*(2), 336-358.
- Tindal, G., Marston, D., & Deno, S.L. (1983). *The reliability of direct and repeated measurement* (Research Rep. No. 109). Minneapolis, MN: University of Minnesota Institute for Research on Learning Disabilities.
- Tobin, K & Tippins, D. (1993) Constructivism as a referent for teaching and learning. In K. Tobin, (Ed.), *The practice of constructivism in science*. Hillsdale, NJ: Erlbaum.
- Torgeson, J. (n.d.). *A principal's guide to intensive reading interventions for struggling readers in reading first schools*. Retrieved from Educational Resource Information Center Database.
- Torgesen, J. K., Wagner, R.K., & Rashotte, C.A. (1994). Longitudinal studies of phonological processing and reading: *Journal of Learning Disabilities, 27*, 276-286.
- Triplett, C. F. (2007). The social construction of "struggle": Influences of school literacy contexts, curriculum, and relationships. *Journal of Literacy Research, 39*(1), 95-126.
- Tucker-Drob, E. M., Johnson, K. E., & Jones, R. N. (2009). The cognitive reserve hypothesis: A longitudinal examination of age-associated declines in reasoning and processing speed. *Developmental Psychology, 45*(2), 431-446.
- U.S. Department of Education. (2001b). *Reading out: Raising African American achievement*. No child left behind fact sheets. Retrieved from Educational Resource Information Center Database.

- U.S. Department of Education. (2001e). Reading first: In no child left behind *act of 2001*. Retrieved from Educational Resource Information Center Database.
- U.S. Department of Education. (2001e). *Reading first funding status*. Retrieved from Educational Resource Information Center Database.
- U.S. Department of Education, National Center for Education Statistics. (2003). The nation's report card: Reading highlights 2003. Retrieved from Educational Resource Information Center Database.
- Valencia, S., & Wixson, K. (2000). Policy-oriented research on literacy standards and assessment. In M. Kamil, P. Mosenthal, D. Pearson, & R. Barr (Eds.), *Handbook of reading research*. Mahwah, NJ: Erlbaum.
- Van Den Broek, P., Rapp, D. N., & Kendeou, P. (2005). Integrating memory-based and constructionist processes in accounts of reading comprehension. *Discourse Processes A Multidisciplinary Journal*, 39(2 & 3), 299-316.
- Vaughn, S., Hughes, M. T., Klingner, J., & Schumm, J. S. (1998). A collaborative effort to enhance reading and writing instruction in inclusion classrooms. *Learning Disability Quarterly*, 21(1), 57-74.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Walczyk, J. J. & Griffith-Ross, D. A. (2007). How important is reading skill fluency for comprehension? *Reading Teacher*, 60(6), 560-569.
- Walton, C. (1998). *The effects of professional development on change in instructional practice and student achievement: An experimental analysis*. Unpublished doctoral dissertation, University of Kansas, Lawrence.
- Warrington, R. (2003). *The effects of revised directions for Dynamic Indicators of Basic Early Literacy Skills Oral Reading Fluency (DORF): Oral Retell Fluency*, Unpublished master's thesis, University of Oregon.
- Winfield, L. (1996). Teachers beliefs toward academically at-risk students in inner-city Schools. In McCormick, S. *Instructing students who have literacy problems*. Upper Saddle River, NJ: Pearson Education.
- Wing-yi Cheng, R., Lam, S., & Chung-yan Chan (2008). When high achievers and low achievers work in the same group: The roles of group heterogeneity and processes in project-based learning. *British Journal of Educational Psychology*, 78, 205-221.

Wren, S., & Reed, D. (2005). Literacy coaches roles and responsibilities. *SEDL-Letter*, 1, 6-12.

School Report Card. Retrieved from Illinois State Board of Education.

Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed.). Thousand Oaks, CA: Sage.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage

Zhang, L. J. (2008). Constructivist pedagogy in strategic reading instruction: Exploring pathways to learner development in the English as a second language (ESL) classroom. *Instructional Science: An International Journal of the Learning Sciences*, 36(2), 89-116.

## APPENDIX A

### CONSENT FORM FOR INTERVIEWS

You are invited to take part in a research study that will explore teacher perceptions about the instructional factors that contribute to reading achievement for students in grades 3-4. You were chosen for the study because you are an adult over 18. Please read this form and ask any questions you have before agreeing to be part of the study.

This study is being conducted by a researcher, who is a doctoral student at Walden University. The purpose of this study is to explore teacher perceptions about the instructional factors that contribute to achievement in reading for students in grades 3-4.

#### **Procedures:**

If you agree to be in this study, you will be asked to:

- Sign a consent form.
- Participate in an individual interview which will last approximately 30-45 minutes.
- Review a summary of your interview for accuracy.

#### **Voluntary Nature of the Study:**

Your participation in this study is voluntary. This means that everyone will respect your decision about whether or not you want to be in the study. No one in the Waukegan School District will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. If you feel stressed during the study you may stop at any time. You may skip any questions that you feel are too personal.

#### **Risks and Benefits of Being in the Study:**

The only time that an individual name will be used in the study will be in the consent form. Individual names will not be used in this study. All data will be kept in my home in a locked file cabinet.



**Compensation:**

There is no compensation for participation in this study.

**Confidentiality:**

Any information you provide will be kept confidential. The researcher will not use your information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in any reports of the study.

**Contacts and Questions:**

The researcher's name is XXXX. The researcher's faculty advisor is Dr. XXXX. You may ask any questions you have now. Or if you have questions later, you may contact the researcher at. If you want to talk privately about your rights as a participant, you can call Dr. XXXXX. She is the Director of the Research Center at Walden University. Her phone number is 1-800-925-3368, extension 1210.

The researcher will give you a copy of this form to keep.

**Statement of Consent:**

I have read the above information. I have received answers to any questions I have at this time. I am 18 years of age or older, and I consent to participate in the study.

Printed Name of

Participant

Participant's Written or

Electronic\* Signature

Researcher's Written or

Electronic\* Signature

Electronic signatures are regulated by the Uniform Electronic Transactions Act. Legally, an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically.

APPENDIX B:  
INTERVIEW QUESTIONS

1. What instructional strategies do you use in your classroom that you believe improve student achievement in reading?
2. What do you think about the effectiveness of the reading standards for students at your grade level?
3. How do you use DIBELS to improve achievement in reading for students in your classroom?
4. How effective do you believe DIBELS is in improving achievement in reading for students in your classroom?

5. What are some of the challenges that you face as a classroom teacher in implementing DIBELS?
  
  
  
  
  
  
  
6. What is your belief about the relationship that needs to exist between you and the student in order to improve student achievement in reading?
  
  
  
  
  
  
  
7. In addition to DIBELS, what other instructional and assessment strategies do you use in your classroom to improve student achievement in reading?
  
  
  
  
  
  
  
8. What reteach lessons do you use in your classroom for students who need extra support for improving their reading skills?

## APPENDIX C:

## INVITATIONAL LETTERS TO PARTICIPANTS

Dear Participant,

I am XXXX, and I am currently a doctoral candidate in the PhD in Education Program at Walden University which is a North Central Association (NCA) accredited distance learning school. The title of my research study is *Nonquantifiable Instructional Factors that Contribute to Achievement in Reading for Students in Grades 3-4 in a Midwestern Urban School District*.

The sources of data that I plan to collect for this research study will involve teacher interviews and classroom observations. I also plan to collect documents such as school improvement plans, lesson plans, reading assessments, and demographic data.

This study will take approximately six to ten weeks to complete, during the winter and spring of 2008. All data collected will be kept confidential, and pseudonyms will be used to report the findings. When the final dissertation is approved by Walden University, I will submit a summary of the findings to each participant.

Each interview will take approximately 30 to 45 minutes to complete and will take place in the classroom. I will use a tape recorder to record each interview as well as take notes during the interview. I will ask you to review the interview notes for accuracy at the end of the interview.

Thank you for your willingness to participate in this study.

Sincerely yours,

XXXXXX

Third Grade Teacher

Dear Participant,

I am XXXX, and I am currently a doctoral candidate in the PhD in Education Program at Walden University which is a North Central Association (NCA) accredited distance learning school of higher education. The title of my study is *Nonquantifiable Instructional Factors that Contribute to Achievement in Reading for Students in Grades 3-4 in a Midwestern Urban School District*.

The sources of data that I plan to collect for this research study will involve teacher interviews and classroom observations. I also plan to collect documents such as school improvement plans, lesson plans, reading assessments, and demographic data.

This study will take approximately six to ten weeks to complete, during the winter and spring of 2008. All data collected will be kept confidential, and pseudonyms will be used to report the findings. When the final dissertation is approved by Walden University, I will submit a summary of the findings to each participant

Each observation will take place during your instructional reading time and will last approximately 45 minutes. I will take field notes during the observation, using specific criteria as a guide. I will also ask the teacher to review the field notes for accuracy at the end of the observation.

Thank you for your willingness to participate in this study.

Sincerely yours,

XXXXX

Third Grade Teacher

APPENDIX D:  
OBSERVATION CONSENT FORM

You are invited to take part in a research study that will explore teacher perceptions about the instructional factors that contribute to reading achievement for students in grades 3-4. You were chosen for the study because you are an adult over 18. Please read this form and ask any questions you have before agreeing to be part of the study.

This study is being conducted by a researcher named Alice Figgs, who is a doctoral student at Walden University. The purpose of this study is to explore teacher perceptions about the instructional factors that contribute to achievement in reading for students in grades 3-4.

**Procedures:**

- If you agree to be in this study, you will be asked to:
- Sign a consent form.
- Participate in an observation which will last approximately 45 minutes.
- Review the field notes of the observation for accuracy.

**Voluntary Nature of the Study:**

Your participation in this study is voluntary. This means that everyone will respect your decision of whether or not you want to be in the study. No one in the xxxxx District will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. If you feel stressed during the study you may stop at any time. You may skip any questions that you feel are too personal.

**Risks and Benefits of Being in the Study:**

The only time that an individual name will be used in the study will be in the consent form. Otherwise, individual names will not be used in this study. All data will be kept in my home in a locked file cabinet.

**Compensation**

There is no compensation for participation in this study.

**Confidentiality:**

Any information you provide will be kept confidential. The researcher will not use your information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in any reports of the study.

**Contacts and Questions:**

The researcher's name is XXXX. The researcher's faculty advisor is Dr. Deanna Boddie. You may ask any questions you have now. Or if you have questions later, you may contact the researcher at If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Director of the Research Center at Walden University. Her phone number is 1-800-925-3368, extension 1210.

The researcher will give you a copy of this form to keep.

**Statement of Consent:**

I have read the above information. I have received answers to any questions I have at this time. I am 18 years of age or older, and I consent to participate in the study.

Printed Name of

Participant

Participant's Written or

Electronic\* Signature

Researcher's Written or

Electronic\* Signature

Electronic signatures are regulated by the Uniform Electronic Transactions Act. Legally, an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically.

APPENDIX E:  
OBSERVATION DATA COLLECTION FORM

Physical Environment or Classroom Setting

Field Notes on Setting	Researcher Reflections

Diversity of the Classroom

Field Notes on Diversity	Researcher Reflections



## Gender Makeup of the Classroom

Field Notes on Makeup	Researcher Reflections
-----------------------	------------------------

## Content of the Reading Lesson

Field Notes on Content	Researcher Reflections
------------------------	------------------------

## Instructional Strategies Used During the Lesson

Field Notes on Instructional Strategies	Researcher Reflections
---	------------------------

## Verbal Student Responses during the Lesson

Field Notes on Verbal Responses	Researcher Reflections
---------------------------------	------------------------

## Non-Verbal Student Responses during the Lesson

Field Notes on Non-Verbal Responses	Researcher Reflections

## Student Questions asked during the Lesson

Field Notes on Questions Asked	Researcher Reflections

## CURRICULUM VITAE

Alice Marie Davis Figgs

### *Education*

PhD in Education

Specialization: K-12 Educational Leadership

Walden University

Minneapolis, MN

Dissertation: Nonquantifiable Instructional Factors that Contribute to Achievement in Reading for Students in Grades 3-4 in a Midwestern Urban School District

Anticipated Graduation November, 2009

Masters in Education

Specialization: Curriculum and Instruction

English as A Second Language (ESL) endorsement

National Louis University

Wheeling, IL

June, 1997

Professional Graduate Coursework to stay abreast of current education knowledge

Olivet Nazarene University, 2000

Bourbonnais, IL

Master of Arts

Michigan State University

Lansing, MI

August, 1987

Bachelor of Science Degree

Special Education K-12/Elementary Education K-5/ Social Science K-9

Jackson State University

Jackson, MS

May, 1976

### *Work Experience*

Classroom Teacher

Taught reading, grades 6-8; math, grades 3-5; primary, K-1.

Albion Public Schools

Albion, MI

August 1976 to May 1987

Grade 3 Classroom Teacher  
August 1987 to Present

Peer Coaching Facilitator  
2006 to Present

Lead Elementary Mentor/Leader  
August 2004 to June 2008

Curriculum Developer in Reading and Math  
June 2003 to July 2005

Tutor in Reading  
October 2002 to June 2004

Tutor in Reading for the YMCA  
October 1989 to May 2002