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Teacher Change within a Reading Improvement Model: A Case Study of a First Grade Teacher's Changing Practices in Implementing Effective Reading Instruction with Struggling Readers

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Teacher Change within a Reading Improvement Model: A Case Study of a First Grade Teacher's Changing Reading Instruction with Struggling Readers

by

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Dedication

To my mother

“You know the Buddhists believe that sometimes when everything is in turmoil, it’s because something wonderful is ready to be born and that thing is distracting you so it can have some privacy during the birthing process “ (Cleage, p. 27).

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Teacher Change within a Reading Improvement Model: A Case Study of a First Grade Teacher's Changing Practices in Implementing Effective Reading Instruction with Struggling Readers

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This study examined a first grade, general education teacher's changing practices related to reading intervention for struggling readers as she worked with a group of university researchers to develop and implement a first grade reading instruction model. This study also investigated the following research questions: What changes in a first grade, general education teacher's reading instructional practices occurred because of a year long university-teacher collaborative relationship in implementing evidence-based reading instruction for struggling students? What were the facilitators and barriers for implementing evidence-based reading practices for struggling readers? Analyses of classroom observations, teacher interviews, intervention validity checklists (IVC's), observations, support team meeting notes, research team meeting notes, field notes, and other forms of documentation provided a view into the process of change of one teacher.

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Glossary

Accountability	In efforts to close what has been referred to as the "achievement gap", policymakers are seeking more accountability from their schools. Earlier attempts at reform focused on school inputs and processes, such as complying with regulations and funding allocations. Accountability represents a nationwide shift to focus towards student outcomes. This trend in education reform has become known as and is also commonly referred to as standards-based accountability (No Child Left Behind, NCLB, 2002; National Conference of State Legislatures, NCSL, 2006).
Achievement Gap	Refers to the gap in standardized test scores between African American, Hispanic, American Indian, and low income students and their white, Asian, and more economically advantaged peers (NCLB, 2002; Burkhardt, 2002; NCSL, 2006).
Barriers	Obstacles that prevent or limit the implementation of instructional practices.
Coaching	Expert consultation with a focus on providing teachers with observation and feedback designed to provide teachers with concrete suggestions to aid implementation of evidence-based practices (Fullan & Miles, 1992; Gersten, Morvant, & Brengelman, 1995; Jenkins & Leicester, 1992).
Corrective Feedback	One of the features of evidence-based beginning reading instruction. Effective teachers deliver instruction that includes checks for understanding with corrective feedback (Marzano & Pickering, 1999; Texas Center for Reading and Language Arts, 2000).
Decoding	Refers to the use of strategies (word attack plans) to pronounce unfamiliar words (Carreker, 1999; Gunn, Smolkowski, Bigian, & Black, 2002; Snider, 1997). When discussing instruction in decoding strategies, often used interchangeably with the terms phonetics, phonics, word analysis, word study instruction, skills-based instruction.
Early Identification	Describes "procedures that will allow educators to identify children who need extra help in reading before they experience serious failure and to monitor the early development of reading to identify children who may require extra help as reading instruction proceeds through elementary school" (Torgesen, 1998, p.1).

Early literacy screening tool	A short assessment of reading and early reading skills primarily used to assess the need for intervention and/or inform instruction.
Facilitators	Factors that support a change in instructional practices.
General Education Instruction	Instruction by a general education teacher that occurs outside of a special education program.
Intervention Validity Checklist (IVC)	Instrument developed by researchers to ensure implementation consistency across teachers and treatment fidelity.
Interventions	Instructional treatment designed to enhance reading performance of beginning readers (Swanson, 1999; Torgesen, 1997).
Modeling	The demonstration of a process or skill to clearly delineate for students. Specific strategies include breaking into steps and thinking aloud.
Reform	Changes in educational practices characterized by innovation and with the purpose of improving student achievement. The history of educational reform is interspersed with difficulties in actual implementation of reforms in schools and teachers' resistance to change (Cuban, 1988).
Systematic and Explicit Instruction	Instructional approach that incorporates procedures from effective teachers' research. Components include providing direct nstruction consistently, focusing on a sequence of instruction, and monitoring progress. In addition, the use of modeling, think alouds and examples, giving frequent opportunities to respond during scaffolded practice, checking for understanding, and providing specific, corrective feedback are also characteristic of systematic and explicit instruction (Carnine, Silbert, & Kame'enui, 1997; University of Texas Center for Reading and Language Arts, 2003; Vaughn Gross Center for Reading and Language Arts at The University of Texas at Austin, 2006). "Systematic and explicit instruction is enhanced by using advance organizers, activating background knowledge, pacing, and maximizing instructional time (University of Texas Center for Reading and Language Arts, 2003)."
Whole-language	Reading philosophy characterized by a belief in instruction focusing on the ideas that children's literature, writing activities,

and communication activities used across the curriculum to teach reading incidentally is the preferred method of instruction. Words cannot be broken into components, but read as a whole.

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CHAPTER I

Introduction

CONTEXT OF THE PROBLEM

The spotlight on reading and students difficulties learning to read has called attention to the need for researchers and practitioners alike to examine issues related to how to support the development of effective readers and how best to remediate the large numbers of students experiencing reading difficulties (Allington, 1998). The primary challenge for general education teachers is to build a strong foundation in reading for individual students. Despite a growing body of research to support our knowledge of effective early reading instruction, continued failure of many schools to provide appropriate instruction to a large percentage of struggling students is evident according to nationwide reports such as the National Assessment of Educational Progress (NAEP), (NCES, 2005). Across our nation, one in three students has difficulty learning to read. Of those having difficulty in the first grade, approximately 85% will continue struggling through fourth grade and beyond (U.S. Department of Education, 2002). Students typically do not outgrow reading problems. For example, seventy-four percent of students identified in kindergarten as having a disability, continued to carry that label in the 9th grade (Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996). In fact, approximately thirty-six percent of all fourth graders read below grade level (NCES, 2005). For students from lower income families and African American and Hispanic students, the

percentages of students reading below grade level in the fourth grade are alarming. Close to 70 percent of students living in poverty, 69 percent of African American fourth graders and 64 percent of Hispanic fourth graders are reading below the basic level required for literacy (NCES, 2005). Reading difficulties are the most frequently cited educational obstacle and, students who enter the upper elementary grades (i.e., 4th and 5th grade) with persistent reading problems have a propensity to exhibit reading difficulties that continue throughout school and into adulthood. Moreover, students with disabilities, most of whom have experienced substantial reading difficulties, are more likely to later encounter unemployment and have higher post-school arrest rates (Wagner, 1993). Individuals with significant reading problems are also more likely to drop out of school and are less likely to enroll in post-secondary educational programs (U.S. Department of Education (U.S.DOE), 2002).

Researchers have linked poor reading skills to behavioral and emotional problems like aggressive behavior, hyperactive behavior, and poor self-concept (Good, Simmons, & Smith, 1998). Reading difficulties continue to be the most frequently cited educational obstacle for all students although researchers, educational leaders, and policymakers know that "the nature and quality of classroom literacy instruction are a pivotal force in preventing reading difficulties in young children" (Snow, Burns, & Griffin, 1998, p. 223). Thus, the implementation of effective early reading instruction in the components of reading we know should comprise a reading program remains a major concern to both general and special educators, reading researchers, and policy makers (Fuchs & Fuchs, 1998; No Child Left Behind Act of 2001 (NCLB), 2002; Speece & Case, 2001).

Reading Components and Instruction

Fortunately, over 30 years of reading research have contributed significantly to furthering our understanding of effective reading instruction. Reading research syntheses (National Reading Panel (NRP); Snow et al., 1998; 2000; Swanson, 1999) identified the key components of reading and the instruction that supports successful reading development. The key components of reading instruction include phonological awareness, word recognition, fluency, vocabulary, and comprehension (National Reading Panel (NRP), 2000; Swanson, 1999). Reading research has also clarified the essential nature of phonological awareness (i.e., conscious attention to the sounds of language) in beginning reading (e.g., Adams, 1990; Blachman, 1997; Ehri, 1989). Additionally, a large body of research (e.g., Blachman, 1997; Ehri, 1989; Juel, Griffith, & Gough, 1986; Stanovich, 1986) supports the relationship of phonemic awareness, phonological awareness at the individual phoneme level, to enhance effective beginning reading instruction.

The NRP (2000) has also helped to refocus efforts to improve reading instruction with an emphasis on reading fluency and the importance of rapid, accurate reading to reading comprehension. The National Research Council (NRC) identified a number of obstacles to becoming a skilled reader (Snow et al., 1998). For example, researchers have identified dysfluent reading as an impediment to reading success. Struggling readers must dedicate much of their cognitive effort to decoding individual words. On the other hand, skilled readers decode individual words with automaticity and read at a sufficient rate

with accurate word recognition (Pressley, 1998; Samuels, 1979/1997; Samuels, 2002; Stanovich, 1991). A fluent rate of reading in turn facilitates attention to comprehension (LaBerge & Samuels, 1974; Perfetti, 1985).Although over 30 years of reading research have documented the critical components of an effective reading program, many students still fail to leave the first grade reading at a level indicative of future success. The poor first grade reader frequently continues to be a poor reader (Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996; Torgesen & Burgess, 1998). The disturbing trend of early reading problems leading to later reading and overall academic failure necessitates early identification of reading problems and implementation of appropriate interventions.

For beginning readers, understanding the relationship between speech and print (i.e., the alphabetic principle) is the key player in "real" reading. Stanovich (1992) summarized an important body of research when he said that children must achieve the alphabetic principle to be able to sound out unfamiliar words and move into fluent reading. Word identification problems form the basis for most students' reading difficulties (Torgesen, Wagner, Rashotte, Rose, Lindamood et al., 1999). Problems with word identification arise from difficulty with applying or learning letter-sound correspondences that represent letters and sounds in words (Torgesen & Wagner, 1998). Poor word identification skills result in problems with reading fluency and subsequently reading comprehension (Stanovich, 1991; Torgesen et al., 1999). When students fail to acquire early word reading skills, the consequences range from negative attitudes toward reading to less reading practice and missed opportunities for improvement (Allington, 1984; Brown, Palinscar, & Purcell, 1986; Oka & Paris, 1986).

We know how children learn to read, what factors impede reading development, and which instructional approaches provide the most benefit. The emphasis behind NCLB (2002), Reading First, and other federal and state initiatives is to ensure that educators utilize these findings to inform practices in our educational systems. In order to do this, we need strong general education instruction. A major focus of these initiatives is on highly qualified teachers who implement evidence-based reading instruction.

Professional Development and Teacher Change

For practicing teachers, professional development may be needed to influence changing teachers' reading practices to integrate evidence-based reading research and instruction. Lortie (1975/2002) early on argued that lack of large-scale teacher training within the school environment had potential negative consequences for the teaching profession. Professional development can help teachers change practice to incorporate this evidence-based reading instruction and help students before the need for special education arises. Professional development efforts in which researchers spend one year or more working collaboratively with teachers to help their struggling readers have begun to produce successful changes in early reading instruction for some teachers (Klingner, Vaughn, Hughes, & Arguelles, 1999). Dickson and Bursuck (1999) and Klingner et al. (1999) describe some of the facilitators and barriers that help teachers implement and sustain these evidence-based reading instructional practices. For the purposes of this study, the definition of facilitators and barriers to teachers' changing instructional practices will use these researchers' descriptions of facilitators and barriers. Facilitators

are change agents or the driving force behind teachers' implementation of evidence-based practices and barriers are obstacles that prevent or limit the implement of these practices. However, the "voice" of the teacher and the story of how she undergoes this change in practice are missing from much of this research. Therefore, studies are needed to capture the teacher's story as it unfolds during the school year while she implemented new practices.

STATEMENT OF THE PROBLEM

We have the means to identify students in general education classes who exhibit deficits in reading and we know what constitutes effective instruction for many at-risk students. Early intervention has proven to be effective in preventing reading difficulties. Seventy-six percent of children at-risk for reading difficulties in kindergarten based on poor phonological awareness that were then provided with 1:1 tutoring were at grade level reading levels by grade 2 (Torgesen, 1997). Typically, students who demonstrate significant reading deficits go on later to have reading disabilities. Therefore, it is imperative that the general education teacher be able to identify struggling students and to implement effective reading practices and interventions (O'Connor, 2004). Studies of effective schools and teachers have emphasized ongoing professional development as key to successful implementation of evidence-based reading practices (e.g., Charles A. Dana Center, University of Texas at Austin, 1999; Langer, 2000; Lein, Johnson, & Ragland, 1997). This study examined how a general education teacher proceeded to implement effective reading instruction to at-risk students with collaborative and ongoing university support. It was the goal of this study to examine this teacher's process of change as she

implemented new practices. In addition, this examination of a first grade, general education teacher examined implementing new reading practices in the context of university-teacher collaboration. Studies about collaborative environments are supported throughout the professional literature to facilitate teacher change (Brown & Nagel, 2004; Good & Brophy, 1997; Hoppey, Yendol-Silva, & Pullen, 2004; Noffke, 1997; Pultorak, McCarthy, & Young, 2006; Sheerer, 2000; Sillman, Dana, & Miller, 2000). We also know that these collaborative environments when provided in the form of "intensive and sustained mutual exchange and benefit" (Barnett, Hall, Berg, & Camarena (1999, p. 499) yield more successful and supportive collaborative environments.

SIGNIFICANCE OF THE PROBLEM

Reading difficulties are the most common form of academic problems (Torgesen, 2002). However, we can now use a growing body of converging research on reading development, reading disabilities, and reading instruction to inform policy and instruction. The federal government initiated discussions about evidence-based reading research with the National Research Council (NRC) report, Preventing Reading Difficulties in Young Children (Snow, Burns, & Griffin, 1998). The federal government followed this with the Reading Excellence Act of 1999 (Eisenhart & Towne, 2003; Lather & Moss, 2005), the report of the NRP in 2000, and culminated with Reading First – a part of NCLB. Reading First promotes the use of evidence-based research to provide high-quality reading instruction for grades K-3. The President's existing educational reform effort, NCLB (2002), promises to close the achievement gap by increasing accountability for student performance and focusing on scientifically-based reading

research to inform instruction (NCLB 2002; NCSL, 2006). Sarason's (1990) meta-analysis of the current aims of educational reform lists a social justice aim, "to reduce the wide gulf between the educational accomplishments of children of different classes and backgrounds as one of the major changes that educational reform seeks to accomplish (p. 72). Many agree that government intervention is necessary for wide spread educational reform to be successful (Levitan & Gallo, 1993). However, reform efforts have typically not included the teacher's voice even though teachers are the individuals implementing reform efforts (Roe & Radebaugh, 1993). Research in reading over the last thirty years has produced convincing evidence about the characteristics of delivering effective early reading instruction (e.g., modeling, practice, explicit instruction, corrective feedback, and reinforcement) as well as research-based interventions (reading fluency, word analysis, and comprehension) for children who struggle with learning to read (NRP, 2000; Snow et al., 1998). This research is of critical importance because it suggests that reading interventions implemented in the early grades can prevent reading failure for many at-risk students (Yuill & Oakhill, 1988).

Recent public policy (e.g., NCLB Act of 2001) has stressed that students should be reading on grade level by third grade. Thus, implications suggest we must ensure teachers acquire knowledge of effective reading interventions to implement and sustain with young students. Importantly, the literature on professional development has provided knowledge of effective practices for disseminating this research to teachers to help them make and sustain instructional changes (Berman & McLaughlin, 1976; Fullan & Stiegelbauer, 1991; Joyce & Showers, 1995; Klingner et al., 1999; Vaughn &

Schumm, 1995).

The National Center for Learning Disabilities (NCLD) and other learning disabilities advocacy groups are calling on the United States Congress to examine ways to encourage states to adopt the use of early literacy screening tools that will help identify young children at risk for reading failure and to use a reading curriculum that reflects evidence-based reading instruction. The majority of children with learning disabilities have their primary difficulties with reading (i.e., approximately 80% of all students with learning disabilities); therefore, early screening measures would pave the way for early intervention and prevention of greater failure (NCLD, 2003).

Researchers generally agree that informed implementation of prevention programs would significantly reduce the number of older children identified as having a learning disability and who typically require intensive, long-term special education programs (Torgesen, 1997; Speece, Case, & Molloy, 2003). The use of early intervention and prevention programs could eventually reduce the numbers of children needing expensive special education services because of reading failure. Such a reduction would allow states and districts to concentrate special education funds on students requiring highly specialized instruction and services. At the same time, adoption of early screening techniques, evidence-based instruction, and aggressive reading intervention programs within the context of general education could greatly benefit all students and reduce unnecessary referrals to special education.

We know that well developed reading interventions provided by highly trained

teachers help students learn to read (Elbaum, Vaughn, Hughes, Moody, & Schumm, 2000). However, implementing and sustaining changes in the instructional practices of teachers has proven to be a daunting task. As early as the 1970's, Dan Lortie indicated in his classic social study of the teaching profession that teaching practices were extremely slow to change regardless of new knowledge of effective teaching practices (Lortie, 1975/2002). Other researchers caution against adopting new strategies for each new reform movement and point to the practice of adopting following the latest trend as to why reform movements have failed (Fullan & Miles, 1992). Then and now, researchers have focused attention on the how of instruction or teaching processes that can positively effect student achievement (Pressley, Wharton-McDonald, Allington, Block, & Morrow et al., 2002; Taylor et al., 2005).

Our knowledge of how to prevent reading failure through effective instruction has expanded over the last three decades. Despite the focus of research, school-wide reading improvement programs have been instituted with only varying amounts of success in districts across the country (Jackson, Paratore, Chard, & Garnick, 1999; Vaughn, Hughes, Schumm, & Klingner, 1998). A few studies have provided success stories with significant student improvement and sustained use of interventions with high rates of treatment fidelity (Vaughn et al., 1998). Others, however, have provided a picture of students who showed only marginal gains and teachers who have not implemented interventions according to the intentions of the researchers who taught them (Jackson et al., 1999).

Studies have shown that programs that produce changes require extensive and sustained efforts. Intensive professional development models involve participation by teachers and researchers for a year or longer where researchers provide consultation including coaching and modeling of scientifically based reading instruction that produces student gains in achievement. Foorman and Schatschneider (2003) concluded that translating teacher knowledge into practice through long–term coaching and mentoring results in the greatest student achievement gains. This type of multi-year professional development carries with it a high price in time of the developers and classroom teachers (Vaughn et al., 1998) in addition to a high financial cost. For example, the NCLB Act of 2001, through Reading First grants, has appropriated $6 billion to individual states from 2002 to 2008 to improve the quality of reading instruction through professional development programs that teach critical early reading skills in efforts to improve student reading achievement. Congress enacted this landmark education legislation (NCLB, 2002) to ensure that all children will have an opportunity to learn and achieve at high levels. The problem of students with reading difficulties is significant enough that our government is willing to invest considerable amounts of money towards alleviating the difficulties.

STATEMENT OF PURPOSE

The purpose of this qualitative case study was to examine one teacher's journey through a change process and to gain insight into the facilitators and barriers teachers face when implementing educational reform efforts. In addition, the purpose of this study sought to provide an in-depth examination and analysis of issues of implementation of

early reading instructional practices by a first grade teacher who has learned these reading interventions in a year long professional development. Because the NRP and other syntheses have identified the skills that need development in early reading programs, this study operated within the context that early identification for intervention is essential for reading success and that it is possible to provide that intervention within the general education classroom. The following research questions guided this study:

RESEARCH QUESTIONS

1) What changes in a first grade, general education teacher's reading instructional practices occurred because of a year long university-teacher collaborative relationship in implementing evidence-based reading instruction for struggling students?

2) What were the facilitators and barriers for implementing evidence-based reading practices for struggling readers?

SUMMARY

Reading difficulties are the most frequently cited educational obstacle. However, reading research syntheses identified the key components of reading and the instruction that supports successful reading development. We know that well developed reading interventions provided by highly trained teachers significantly help students learning to read (Elbaum et al., 2000).

Professional development can help teachers change practice to incorporate scientifically- based reading research and help students before the need for special

education arises. Within a conceptual framework of teacher change, this study examined how a general education teacher proceeds to offer intensive reading instruction with collaborative university support and how she implemented evidence-based reading instruction.

CHAPTER II

Review of the Literature

Research documenting evidence-based reading instruction and interventions for first grade students is widely reported. The purpose of this review of the literature was to examine three bodies of literature to inform and provide a framework for this study: (a) literature relevant to general education teachers' change process as they work to implement evidence-based reading instruction, (b) a review of literature that provides a consensus on characteristics that are predictors of students who are likely to struggle with reading, and (c) literature on the evidence-based reading interventions and instructional components that research has indicated are effective for first grade students at risk for reading difficulties.

This review begins by examining studies of teacher change within reading instruction for struggling beginning readers. Initially, I present studies of teacher changes (i.e., reading instructional practices, beliefs, and knowledge of beginning reading components and beginning reading instruction) within efforts to implement evidence-based reading instruction. In particular, I reviewed studies of university-school collaboration. A second purpose is to describe the reading characteristics of first grade students who are at-risk for reading failure including the hardest to reach children recently referred to as "treatment resisters" (Torgesen, 2000). Fewer studies report

interventions that can successfully assist the reading development of these students. These "treatment resisters" are also at-risk for reading failure and thus, may end up identified by educators as a student with a high-incidence disability of which 80% have reading difficulties (i.e., a reading disability) (U. S. Department of Education, 2002). I present a review of the literature that describes characteristics of students who are struggling readers. I examined characteristics of students recently labeled treatment resisters along with studies designed to address these students' needs.

Finally, I present an understanding and review of the literature related to evidence-based reading interventions and critical features of effective instruction for struggling beginning readers at risk for reading disabilities. While we know much about what are known to be effective reading interventions for preventing reading difficulties, a similar convergence of evidence regarding the utilization of these interventions by general education teachers in first grade classrooms working within a model of school wide reading reform is lacking.

TEACHER CHANGE

Drawing upon existing theories of educational change, I conceptualized educational change as a "planned change" referring to change in practice, brought about by some deliberate means (Fullan & Stiegelbauer, 1991) and as improvement over what exists (Sarason, 1971) through program innovation and evaluation and based on continual growth and development for teachers and student achievement results. During the past three decades, research on educational reform has shifted from proposing narrow,

programmatic innovations to more comprehensive solutions, emphasizing contexts, and participants of educational change (Fullan & Stiegelbauer, 1991; Sarason, 1971). Jackson (1992) described teachers as having experiences that change who they are and that these changes influence the classroom in a multitude of ways. Fullan and Stiegelbauer, 1991 emphasized, "It is at the individual level that change does or does not occur" (p. 49). Furthermore, they conceptualized change as a "process, not an event" (p. 49). I illustrated the process of teacher change through this case study of a first grade teacher involved in a university-teacher collaborative.

Theoretical Concepts of Teacher Change

This study focused on the process of an individual teacher's change that Jackson (1992) calls teacher development (i.e., the subclass of changes that are desirable and positive in quality) in the context of a university-teacher collaborative reading improvement model. For the purposes of this study, desirable and positive refer to changes that move the classroom closer to the implementation of evidence-based reading instruction (NRP, 2000). Through this study, observable and documented changes in teaching practices demonstrate positive teacher changes. As we have seen, change occurs within a context of a process of change. The single training model consisting of short-term passive activities with limited follow-up has been consistently shown to be ineffective in generating teacher change. Miller, Lord, and Dorney (1994) reported teachers found these types of trainings boring and irrelevant. These changes typically are less challenging for teachers when they are working within what teachers perceive as a

mentoring and ongoing process. Fuchs, Fuchs, Mathes, and Simmons (1997) found teachers were more likely to adopt practices that fit within their current practices or did not require adopting completely new practices and Desimone (2000) in an extensive review of comprehensive school reform in urban schools found that teachers were more likely to adopt practices that did not require making fundamental changes in the delivery of instruction. Likewise, teachers are more likely to sustain innovations when these changing practices are accompanied by changes in beliefs and knowledge.

Implementing Change: Beliefs, Knowledge, and Practice

Educational researchers acknowledge that teachers enter the profession holding strong beliefs on how to conduct schooling. These beliefs are established through personal experiences and schooling through formal knowledge (Richardson, 1998). Consequently, these existing beliefs and knowledge influence how teachers come to understand and interpret new practices and activities. Further complicating the issue for researchers working to implementing change in schools is that teachers think positively about their knowledge levels, at least in the area of reading, even when their demonstrated knowledge is limited (Cunningham, Perry, Stanovich, & Stanovich, 2004). In other words, teachers might not know what they do not know. Given the importance teachers place on their experiences, teacher development activities need to acknowledge, incorporate, and address the prior ideas, beliefs, and experiences of the teachers. Deepening teacher knowledge about reading instruction can facilitate teachers' changing practices (McCutchen, Abbott, Green, Beretvas, Cox, Potter et al., 2002; Senger, 1999).

According to Fullan and Stiegelbauer (1991), educational change remains a challenge because change is not a single entity. Change is multidimensional and, as such, can vary accordingly both within the same person as well as within groups. There are three critical dimensions in implementing any innovation: a) the possible use of new or revised materials (e.g., a new curriculum), b) the possible use of new teaching approaches (e.g., new activities), and c) the possible alteration of beliefs (e.g., pedagogical assumptions underlying the innovation). The difficulty lies in the fact that all three aspects of change are deemed necessary. Fullan (2001) has further identified a set of interactive elements that together, over time, contribute to the process of change. These factors involve characteristics such as need, clarity, complexity, and practicality. The more factors (facilitators) that support a change, the more likely a change will occur.

Fullan and Stiegelbauer (1991) suggest that when teachers do not clearly understand the nature and goals of the innovation, they might only superficially adopt innovations. Real change in the form of new practice involves change in beliefs and behaviors. Three core features of professional development activities that have significant, positive effects on teachers' self-reported increases in knowledge and skills and changes in classroom practice (Garret, Porter, Desimone, Birman, & Yoon, 2001) along with the aforementioned theories of change provided a foundation for my review of the literature on teacher change.

It appears that acknowledging beliefs that teachers already hold as a part of their

experiences within the classroom and acknowledging that these beliefs about their practices and about student characteristics are strong facilitators of teacher change. If teachers do not feel a part of the process of change and it feels forced on them, they are less likely to adopt new practices. I take from this section of the literature review the ideas that teachers must make changes by adopting new materials, adopting new practices, as well as changing their beliefs. In addition, teachers need to have a clear understanding and rationale for what they are being asked to implement. Therefore, for all teachers, change can occur only as a part of a complex cognitive process that integrates their customary ways of understanding, practices, and beliefs about their subject area (Hargreaves, 2004).

Professional Development: Traditional

Fullan and Stiegelbauer (1991) defined professional development as the "sum total of formal and informal learning experiences throughout one's career" (p. 326). The importance of professional development can be linked to research that indicates improved professional development has increased student learning (Moir & Bloom, 2000). Although there is no shortage of professional development opportunities available to teachers, most consist of an afternoon of summer workshops, school sessions during designated professional development days, and university courses. All these opportunities, albeit useful under certain circumstances, feel disconnected from issues of curriculum and learning, are decontextualized, and lack coherence and consistency (Ball & Cohen, 1999). These models of professional development have typically consisted of

"top down, sit and get" sessions that have not sustained lasting changes in implementation of new practices (Klingner, 2004, p. 248). The new demands placed on teachers require new approaches to professional development. Such approaches need to recognize the linkage between professional development and the improvement of teaching and learning (Ball & Cohen, 1999).

Traditional approaches to professional development have been widely criticized as ineffective. According to Fullan and Stiegelbauer (1991), teachers are recalcitrant and resist change because it is uncomfortable and they want to cling to their old ways. However, Richardson (1998) found that teachers do change quite frequently in response to their students' needs and evidence of effectiveness. In the past decade, educational reform advocates have increased attention to helping teachers adopt innovative approaches to teaching, in particular, the teaching of reading through professional development. Although this is not a new phenomenon (Anderson, Evertson, & Brophy, 1979), new approaches are being applied to the same idea of bringing research to practice.

The importance of professional development can be linked to research that indicates improved professional development has increased student learning (Graves, Gersten, & Haager, 2004; Moir & Bloom, 2000). The new demands placed on teachers require new approaches to professional development as traditional approaches to professional development have been widely criticized as ineffective. These new approaches must acknowledge the links between student learning, teacher learning, and

the improvement of teaching.

Professional Development: New Models of Reform

Theoretical and research concerns regarding teacher change gained momentum in the 1970's (Cazden, 1986; Lortie, 1975/2002). When discussing theoretical models of teacher change and models of professional development, one cannot omit Albert Bandura's work on social learning theory, which also focuses on self-efficacy. Self-efficacy is the belief that one has the capabilities to execute the courses of actions required to manage prospective situations. Unlike efficacy, which is competence, self-efficacy is the belief that one has the power to produce that effect. Teacher efficacy studies have not only associated teacher efficacy with positive student outcomes but also that teachers with a great sense of efficacy are more likely to adopt innovations presented along with ongoing professional development programs (Berman & McLaughlin, 1976; Gersten, Chard, & Baker, 2000). When teachers have a positive sense of teacher efficacy, they believe that their personal influence and power can influence student learning (Guskey, 1998). High efficacy teachers are open to change because they feel that they have the ability to effect instructional change (Ross, Cousins, Gadalla, & Hannay, 1999). Moreover, teachers with strong teaching efficacy are more likely to be innovative in their approaches to teaching (Tschannen-Moran & Hoy, 2001). Gersten et al., (2000) has used these findings to explain that the teacher efficacy phenomenon is more important than the teacher beliefs and attitudes previously used to describe teacher's approaches and feelings about professional development.

Bandura (1999) stated that teachers' beliefs in their personal efficacy to motivate and promote learning in their students and past experience are the most important factor deciding a person's self efficacy. Simply put, success raises self-efficacy and failure lowers it. Modeling is an important part of self-efficacy because it incorporates the process of comparison between a person and someone else. When a teacher sees a model of someone succeeding at something, his or her self-efficacy will increase. This process is more effectual where people see themselves as similar to their model. Modeling is a powerful influence when teachers are particularly unsure of themselves. Thus, modeling is an important part of ongoing professional development when implementing educational reform activities. If teachers see a peer whom they perceive to have similar ability succeed, this will likely increase their self-efficacy. This may be why peer coaching and ongoing professional development that focuses on collaboration and mentoring seems to be more effective than other forms of professional development to aid implementation of reform (Gersten et al., 1995).

In terms of self-efficacy and teacher change, researchers working with teachers can increase teachers' self efficacy by respecting teachers' opinions and focusing on what teachers are already doing right. This corresponds with what Lortie (1975/2002) has said about encouraging more collegial relationships with teachers and researchers. Besides self-efficacy, another new model for teacher change addresses teachers' practical knowledge and cognition.

In reviewing the teacher change literature, Virginia Richardson (1990) notes two

dilemmas: “in this literature (change is defined) as teachers doing something others are suggesting they do” (p.13), and that furthermore, the theoretical framing of the research neglects “conceptions of individual teacher change” (p.13). Recently, there have been suggestions that innovations should be presented to teachers as a set of principles or general aims to be modified in the light of experience and embodied in practices that vary by classroom (Tyack & Cuban, 1995). Commentators on educational reform began arguing for an upgrade of the quality of public education in the early 1950s (Lortie, 1975/2002) and more recently, commentators (Peterson, McCarthey, & Elmore, 1996; Prawat, 1991) argue strongly for the need to shift this research focus from teacher behaviors to teachers’ practical knowledge and cognition.

A third model focuses on professional learning communities. Lortie (1975) noted that educational change would occur only when a shift occurred to a focus on more collegial relationships and more sharing of teacher knowledge and expertise. Lortie’s (1975/2002) observations are supported by arguments that address school capacity (Newman, King, & Youngs, 2001) and results that were reported from a large-scale empirical comparison study of effects of different characteristics of professional development on teachers’ learning (Garet et al., 2001). The work of Garet and colleagues (2001) reported features of professional development activities that have had significant, positive effects on teachers’ increases in knowledge and skills based on a large-scale empirical comparison of the effects of the different characteristics or core These core features found to make professional development more effective consisted of 1) a heavy emphasis on the subject matter content as well as 2) a relative emphasis on pedagogy, 3)

specificity of the change (e.g., using particular curricula and specific or prescribed teaching strategies) was instrumental for the effectiveness of professional development programs, and 4) if teachers could improve student performance, researchers have found that this increased the effectiveness of professional development for teachers. The work of Garet et al. (2001) also found that core features of effective professional development programs were including elements of active learning in the program like observing and being observed. Finally, Garet and others (2001) reported that fostering coherence was important to the success of professional development efforts, particularly in creating alignment with standards and assessments that teachers were already being asked to understand and implement. Efforts to implement processes of renewal and transformation can create challenges in school districts like competition for scarce time and resources and uneven knowledge amongst practitioners (Darling-Hammond, Pacheco, Mitchell, LePage, Hammerness, & Youngs, 2005). However, for professional development to effect change, these learning experiences (i.e., professional development) need to provide teachers adequate time to work with colleagues, critically examine new standards, develop new curricula, and reflect on new pedagogical strategies (Achinstein, 2002; Corcoran, 1995; Craig, 2006). We have heard for over 30 years that teacher change will only occur in response to changes in our professional development delivery (Valencia & Wixson, 2000). Theoretical and research concerns regarding teacher change gained momentum in the 1970's (Cazden, 1986; Lortie, 1975/2002). Bandura's theories of social learning and self-efficacy suggest that when a teacher sees a model of someone succeeding at something, his or her self-efficacy will increase. In terms of teacher

change, researchers working with teachers can increase teachers' self efficacy by respecting teachers' opinions and focusing on what teachers are already doing right. This understanding can have important information for teacher change efforts. Lortie (1975/2002) also noted that educational change would occur only when a shift occurred to a focus on more collegial relationships and more sharing of teacher knowledge and expertise. This shift represents the direction of current reform efforts.

Concerns Based Adoption Model

In a review of research regarding the Concerns Based Adoption Model, Andersen and Andersen (1997) stress that this model is still relevant to today's educational reform efforts. The Concerns Based Adoption Model examines the Stages of Concern, Levels of Use, and Innovation Configurations as individuals undergo change. The Stages of Concern seem particularly relevant to understanding how teachers are experiencing the changes through which they are navigating. The Stages of Concern "describes the feelings and motivations a teacher might have about a change in curriculum and/or instructional practices at different points in its implementation" (p. 334). Not all teachers go through every stage, but they do generally progress through these stages: awareness, informational, personal, management, consequence, collaboration, and refocusing. The information reviewed by Anderson (1997) indicated that this theory is a valid way of examining some of the factors involved in teacher change. What can be taken from this vast body of research is the fact that teachers' concerns when implementing innovations in the classroom progress through fairly clear stages and that professional development

programs should help teachers address these concerns and promote movement through the stages.

Cuban (1988) made a distinction between first-order changes and second-order changes. First-order changes are those that improve efficiency of current practices without fundamentally changing school organizational features fundamental ways in which organizations operate, including new goals, structures, and roles. Most changes since the turn of the century have been first-order changes. Cuban (1988) seems to suggest that in order for second order changes that fundamentally change school organization (i.e., school reform) to occur, teachers need influences from outside authorities (e.g., government or administrative influence). The stages of concern seem particularly relevant to understanding how teachers are experiencing the changes through which they are navigating. Cuban (1988) makes a distinction between first-order changes and second-order changes and states that most changes since the turn of the century have been first-order changes. Cuban (1988) is indicating that teachers need influences from authority forces to influence change.

Teacher Change Studies in Language Arts Classrooms

Teacher change studies in the context of language arts in elementary grades for the purposes of this literature review were obtained from large-scale surveys of "teachers' transition from skills to whole-language" (Anderson, 1997), from longitudinal case studies, and studies focusing on teacher beliefs and perceptions (Anders & Richardson, 1992). Anderson (1997) conducted a large-scale survey of teachers' perceptions of their

transition from a skills based classroom to a whole-language classroom. One hundred and sixty-two out of 400 K-12 teachers in Ohio school districts answered questionnaires asking about reasons why they changed to a whole-language philosophy. Teachers indicated that the most important reason for change was that they had read literature about whole-language theory and talking to the whole-language teachers had influenced them. The most difficult barrier to implementation for teachers was lack of books and other materials. Within other studies of teacher change, material also played an important role (Spillane, 2002). Change was typically gradual; only one in three teachers said that she changed immediately and all at once. Teachers also said that they received support from other teachers and used their basal readers along with literature. Because this particular study relied on teachers' self-reported data and researchers made no classroom observations, it is difficult to ascertain the teachers' level of conceptual understanding of the new method of teaching (i.e., the whole-language philosophy). Many researchers have found that when change is to occur, teachers need to do so with a clear sense of purpose for the benefit to student learners (Richardson, 1998).

Baker and Smith (1999) conducted a study that described changes in two kindergarten programs targeting phonological awareness and alphabetic understanding. Changes in instruction were the focus of professional development. Two schools and three kindergarten teachers implemented small group instruction, providing explicit instruction in phonemic awareness and alphabetic understanding. Researchers observed teachers implementing new practices and provided formative feedback. Results for this study focused on student achievement as well as teacher practices. Baker and Smith

(1999) reported effect sizes of .90 and 1.41 at school number one; at school number two, they found significant growth in letter names and sounds; however, students' performance did not match those of their peers. These researchers did report sustainability results and found teachers' intervention practices more closely aligned with the professional development provided at a higher rate in the implementation year than in the sustainability year. They also observed increased student achievement growth in the sustainability year with a change in instructional focus to increase attention on alphabetic understanding, especially letter names, at school number one, progress monitoring, and instruction that is more explicit.

The effective schools literature has often focused on innovations in teacher practices and teacher competencies. Stallings, Robbins, Pressure, and Scott (1986) indicated the importance of providing teachers with formative evaluation to facilitate positive classroom changes and create teacher support for the research involved. Researchers expect observed changes in teacher practices to be sustained because of the teachers' and schools' confidence in the program and satisfaction with student results. Teacher support and teacher conceptual knowledge and understanding proved essential to teachers' sustaining change over time.

Anders and colleagues (1992) conducted a study designed to describe teachers' beliefs and practices about teaching reading comprehension in the 4th, 5th, and 6th grade classrooms. Thirty-nine teachers were interviewed about their beliefs regarding reading comprehension instruction, however, only twelve of the teachers (located across two

elementary school campuses) surveyed received professional development that consisted of exploring teachers' knowledge about reading comprehension and presenting research-based practices in reading comprehension in a semester long study. The professional development consisted of 8-11 informal group discussions occurring in each targeted school. Each meeting spanned two and 3-hour sessions and the focus and agendas for these meetings were created from interview transcripts that helped researchers determine major topics and subtopics. Researchers videotaped each professional development session and researchers then categorized the sessions and the resulting discussions into major topics and subtopics that informed the study's findings. Two major themes emerged from the small group discussions, assessment and accountability, and these responses did not vary significantly across the two schools. Principals were also interviewed to provide input into school effects on teacher beliefs and perceptions. Researchers determined that principals did not seem to influence teachers' beliefs and perceptions in the two schools studied. Findings focused on teacher's beliefs and perceptions about assessment and accountability and found that teachers in both schools felt a significant amount of tension between what was required of them and their own beliefs and values which has been echoed in the literature on teachers and curriculum reform efforts (Craig, 2006). Researchers determined that the "culture of accountability" was counterproductive to the ability to develop teacher autonomy (Anders et al 1992, p. 395). Interestingly enough, the article reporting the study's methodology and findings paid minimal attention to the professional development involved or the process of teacher change. However, Richardson (1990) discussed aspects of this study in an earlier article.

This particular article (Anders et al., 1992) was included in this review of the literature on teacher change because the authors claim the study's described professional development model can advance educational change (reform) efforts by empowering teachers to take the initiative to make changes within the school.

Richardson (1990) reported on the same study previously reviewed, however, there was more reported about teacher changes that were made throughout the study. Researchers asked teachers to implement research-based practices in reading comprehension but because the focus was on allowing teachers to implement practices based on their value system and beliefs, if a teacher felt like a practice was not working for that teacher, he, or she discontinued the practice. Teachers determined a practice was not working for them if it violated the teacher's prior learning and beliefs. Teacher beliefs have long been considered the key to producing teacher change. Tyack and Cuban (1993) recommended that instructional practices be presented to teachers who are then allowed to modify and adopt them into their own practice.

Within the Richardson (1990) study, teachers did not connect the practices they continued to the scholarly research that accompanied the practice. If they continued a practice, either it already fit within their beliefs or they kept the practice because they felt that the practice would positively affect student achievement. Richardson (1990) concluded that research-based reading instructional practices often did not connect well with the ways teachers think about reading instruction. Again, the researcher reported that perspectives and approaches to teacher change undergo a transformation. The conclusion

is that teachers need to be able to experiment with research-based practices and choose which practices fit within their value system. This process, Richardson (1990) suggests, must occur within an environment of "trust" (p. 16) that is accompanied by opportunities for teacher reflection, discussion with colleagues, and sharing.

Klingner, Vaughn, Hughes, and Arguelles (1999) described teachers' ongoing implementation of instructional practices and the changes they made during a 3-year follow-up to determine whether teachers had sustained the research-based practices (i.e., partner reading, collaborative strategic reading, and making words) targeted during an intensive year long professional development. Teachers implementing at high levels initially were more likely to sustain practices at high levels in the sustainability follow-up. Through this follow-up, Klingner and colleagues (1999) also were able to determine a list of implementation facilitators and barriers and found several factors that influenced the sustainability of a practice. They found that a support network, administrative backing, student benefits, students' acceptance of an instructional practice, being able to modify a practice, and having materials already prepared or available were extensive facilitators. Having a support network and strong leadership are findings supported by additional research on professional development and reform efforts (Wixsom & Yochum, 2004).

Summary of Teacher Change Studies in the Context of Language Arts Classrooms

Teacher change studies in the context of language arts in elementary grades have often been focused on changing teacher beliefs, practices, and perceptions (Jennings &

Smith, 2002). Changes in instruction were the focus of professional development. Teacher support and teacher conceptual knowledge and understanding proved essential to teachers' sustaining change over time. In addition, the empowerment of teachers is a clear advantage for reformers. Some influencing factors stand out and a model for teacher change emerged from this examination of studies.

School-University Partnerships

Studies of collaborative efforts through supervisor/teacher dialogue or University research project/graduate program (Athanses, 1994; Hunsaker & Johnston, 1992; Mills & Pollak, 1993). Pressley, Schuder, Bergman, and El-Dinary (1992) have described promising and interesting contexts for teacher change. However, these school-university collaborations have inherent complexities (Johnston, 1997). In the studies that follow, teachers were seen as learners and partners in research collaboration. Bos, Mather, Narr, and Babur (1999) reported about a study called Project RIME (Reading Instructional Methods of Efficacy), which was designed to support early, elementary and special education teachers as they worked to, among other goals, implement instruction that is more explicit for struggling readers. Project RIME, a 3-year project to develop, field test, and disseminate a model of professional development for early elementary and special education teachers focusing on methods for teaching early reading and spelling to children at risk for reading and spelling failure. The model was composed of first, a 3-unit graduate course in assessment and instruction for students with early reading and spelling difficulties and second, school collaboration to support teachers through

classroom visits, peer coaching, and group discussions. Finally, an evaluation was a part of the project. The project's three phases involved development of the model, implementation, and evaluation in four schools, and replication in three additional schools. Bos and others (1999) compared 11 teachers from two schools and compared them to teachers from two other schools in an effort to measure teachers' perceptions and beliefs toward using explicit instruction and whether those beliefs and perceptions changed throughout the course of Project RIME. Findings suggest that teachers enjoyed the collaborative nature of the professional development and that they became more positive in their attitudes, more knowledgeable about early reading instruction, and began integrating explicit instruction with skill. Perhaps the effectiveness of Project RIME was due partly to the fact that the researchers' goal "was not to have teachers replace one set of beliefs toward teaching early literacy with another" (Bos et al., 1999, p. 235). Rather, the project emphasized sharing and discussion of research while acknowledging that there were different perspectives about reading instruction.

Johnston (1997) described the difficulties she had when approaching a school-university partnership. She described how she initially found herself approaching the collaboration with a romanticized view, lamenting the university-driven projects that she had taken part in because of their lack of "true" collaboration. The findings from this school-university partnership literature demonstrate that when school-university collaboration is planned around a specific task, or problem, it has potentials for fostering deep change and contributing to participants' conceptual learning.

Athanses (1994) conducted a California study about teachers' preparing literacy instruction portfolios. During the school year, teachers were asked to document a full-class literature lesson and to include in the portfolio documents, lesson plans, videotapes of teaching, student work samples, and journal entries of teacher reflection. This study highlights practical, context-specific change where teachers grappled in their classrooms with real literacy tasks. The task structure supported their thinking through their practice. Working with the portfolio relates to an activity embedded in theory (Richardson, 1990), and thus, it contributed to deeper conceptual change.

Hunsaker and colleagues (1992) reported a collaborative case study documenting changes over four-years in one teacher's teaching beliefs and practices in her first grade classroom. The study involves collaboration between the university-based researcher and teacher-researcher and involves a co-created narrative. This study's findings and results illustrate that research projects based on school-university collaborations have the potential to support the building of an intellectual community that educates those in the university as well as those in K-12 schools. Gersten, Woodward, and Morvant (1992) first described the teacher change process in terms of what they refer to as the "reality principle" (i.e., concrete, classroom-friendly, research easily able to be translated into manageable and comprehensible teaching strategies and procedures). Gersten and Brengelman (1996) described other important factors to consider when researchers work with teachers to effect teacher change including attention to technical and conceptual aspects of the change process, providing collegial support and networks, connecting teacher changes to student learning outcomes, and ensuring an appropriate scope of the

reform efforts (i.e., sufficient in the extent, yet not overly grandiose). These realities of moving research to practice are often discussed in the literature reflecting the difficulties of collaborating with teachers when current practices differ from the evidence-based research practices teachers are being asked to implement (Dickson & Bursuck, 1999).

Dickson and Bursuck (1999) described a prevention approach that involved layering reading instruction in tiers, or levels, that begin with effective practices implemented class-wide and also included ongoing screening and progress monitoring as part of the class-wide intervention. They then worked with the general education teachers to provide successive levels of support to students as needed (Dickson & Bursuck, 1999). The work of Dickson and Bursuck (1999) found that when students at risk for reading failure were provided with small-group, intensive intervention reading achievement was achieved for these students. However, as cited in Vaughn and Linan-Thompson, 2003, Dickson and Bursuck (1999) "lamented the lack of time and resources needed to support change in teachers' instruction" (Vaughn & Linan-Thompson, 2003, p. 143).

Summary of the School-University Partnership Studies

Studies reviewed here indicate the power of long-term collaborative university/teacher classroom studies for advancing our knowledge of reading instruction and teacher practices. In addition, teachers are less likely to resist change when they are involved in the change process (Richardson, 1998). Studies focusing on the particular context of first grade and struggling readers are lacking. However, recently researchers have held out promise for school-university partnerships while cautioning that individual

teacher factors will often influence the value of the partnerships and mediate teaching behavior change (Fisler & Firestone, 2006). This study addressed this gap by providing a careful description of a first grade, general education, reading classroom community where teacher change occurs within a university-teacher collaborative.

SUMMARY OF TEACHER CHANGE STUDIES

From this review of teacher change studies, a framework of teacher change studies emerged that was used to help form a framework for my research study.

For this study, the framework for teacher change was:

1) Ongoing professional development,
2) Teacher-university collaboration,
3) Teacher knowledge formation,
4) Supporting teachers with analyzing data-driven instruction,
5) Supporting teachers while implementing evidence-based reading instruction, and
6) Supporting teachers to make adaptations for struggling readers.

CHARACTERISTICS OF READING DISABILITIES IN YOUNG CHILDREN

Reading disabilities can be defined as having problems meeting reading milestones for a given age or grade (Vellutino, Scanlon, & Lyon, 2000). A reading disability may also be referred to as a reading disorder, or dyslexia (National Joint Committee for Learning Disabilities (NJCLD), 2003). Having knowledge of how to identify and prevent later reading failure, we should have 98% of students reading on grade level by the end of second grade (Lyon, 2003). Reading and reading disabilities are

major topics of concern to the public and do constitute a public health crisis in this nation (Lyon, 2003).

As we move toward reforming the special education referral and identification process (Lyon, 2003) general education teachers will need to be instructed on how to identify and work with children who need intense instruction at an early age. Teachers' knowledge of how to implement phonemic awareness instruction will help reduce the number of students who end up identified as having reading disabilities (Vaughn & Linan-Thompson, 2003). Reading fluency often contributes significantly to students' ability to comprehend what they read (Armbruster, Lehr, & Osborn, 2001). The underlying core deficit in comprehension is the segmenting of words (Hagtvet, 2004). A child unable to process the sounds in words will have a difficult time segmenting. Without the ability to decode with automaticity, accuracy, and fluency, comprehension will be difficult (Samuels, 2002). All of the components of reading work together.

Researchers have indicated that a core phonological deficit is at the root of reading difficulties (Torgesen, 1997). The double-deficit theory recognizes the role that phonemic awareness plays in the acquisition of reading but also proposes that the lack of phonemic awareness in combination with poor rapid naming ability (i.e., a double-deficit) contributes to poor reading ability. Researchers have recently questioned if these characteristics are important correlates of response or lack of response to intervention (Al-Otaiba & Fuchs, 2002). The literature indicates the struggles that these students who are at risk for reading failure experience and the characteristics of primary students with

reading difficulties.

Predictive Studies

Lonigan, Burgess, and Anthony (2000) examined components of emergent literacy and literacy in preschoolers to determine the predictive capabilities of these domains (i.e., phonological sensitivity, print awareness, and oral language). This longitudinal study found that letter knowledge and phonological sensitivity in preschool were high correlates of later decoding skills (i.e., first grade) in students from higher socioeconomic backgrounds. In addition, these researchers determined that a paucity of early literacy skills in preschool significantly indicated that students from lower socioeconomic backgrounds would be at risk for reading difficulties by the first grade. Results from two descriptive studies that controlled for the variance between naming speed and early word recognition as well as between phonological awareness (PA) and early word reading represent opposing conclusions. Torgesen et al. (1997) and Meyer, Wood, Hart et al. (1998) arrived at two different conclusions suggesting that other variables (e.g., instruction, socio-economic status, sample selection) might have affected the differential outcomes. Torgesen et al. (1997) found that the level of phonemic awareness (PA) in 2nd grade contributed to later (i.e., Grade 4) word recognition skills but naming speed did not. Whereas, Meyer et al. (1998) found that among third graders, naming speed was the only variable that predicted later (i.e., fifth and eight grade) word recognition ability after controlling for IQ and SES. Wolf, O'Rourke, Gidney, Lovett, Cirino, & Morris (2002) suggest that the use of a classroom sample in the Torgesen study

might have contributed to a higher representation of single deficit or phonologically impaired students based on the Torgesen et al. (1997) discussion of 'curricular disabilities'. In addition, the Meyer study used a more selective sample of readers with impairments and a slightly older sample. One study sheds interesting light on the discussion over best predictors for later reading disabilities. Hammill, Mather, Allen and Roberts (2002) caution against using a single construct like phonology or rapid naming as a predictor or cause for reading difficulties. Although Hamm ill and others found that phonology has a high correlation with word identification and rapid naming has a moderate correlation with word identification, they advise researchers not to assign utmost importance to any individual factor or assign causal relationships to correlations. However, they do agree with Wolf and others who state that rapid naming is a separate construct from phonology and not a subset of phonological skills. They suggest that a useful predictor of later reading failure resides with a cluster of reading abilities yet to be determined that holds a higher correlation (.75) with reading achievement.

Despite Hammill and his colleagues' (2002) findings, letter naming speed still seems to be the best early predictor for later word identification and connected text reading (Speece, Mills, Ritchey et al. 2003; Young & Bowers, 1995). For those studies that compared the predictive value of phonological processing with naming speed (Bowers & Swanson, 1991; Manis, Doi, & Bhadha, 2000), a more precise description of children with severe reading difficulties emerges. These researchers found that phonological awareness predicts decoding skills and comprehension and that phonological awareness contributes to later word identification accuracy and oral reading

individually and in conjunction with naming speed. The predictive studies reviewed here represent research that provide significant understanding about characteristics of students with reading disabilities or at-risk for reading difficulties.

Descriptors for Young Students At-Risk for Reading Failure

Many studies described at-risk students primarily as having low phonological awareness skills (Berninger, Abbott, Zook, Ogier, & Lemos-Britton et al., 1999; Ehri & Robbins, 1992; O'Connor, Jenkins, Leicester, & Slocum, 1993; O'Connor, Notari-Syverson, & Vadasy, 1998; Torgesen et al., 1997; Torgesen, Wagner, Rashotte et al., 1999; Uhry & Shepherd, 1997; Vandervelden & Siegel, 1997; Vellutino, Scanlon, & Lyon, 2000; Vellutino, Scanlon, Sipay et al., 1996). Additionally, researchers often described at-risk students as having low naming speed (Torgesen et al., 1997, 1999; Uhry & Shepherd, 1997; Vellutino et al., 1996, 2000). Several of the studies reported that students chosen for intervention were below grade level in reading (Gunn, Smolkowski, Bigian et al., 2002; Rashotte, MacPhee, & Torgesen, 2001). Many of the studies also reported that at-risk students had poor attention and/or low IQ and low verbal ability (Berninger et al., 1999; Kasten, 1998; O'Connor et al., 1998; O'Shaughnessy & Swanson, 2000; Snider, 1997; Uhry & Shepherd, 1997; Vadasy, Jenkins, & Antil et al., 1997; Vellutino et al., 2000; Vellutino et al., 1996). Others included a description of students with spelling or orthographic difficulties (Berninger et al., 1999; Rashotte et al., 2001; Torgesen et al., 1996; Vadasy et al., 1997). One study reported low reading fluency rates to describe participants (O'Shaughnessy & Swanson, 2000) and another included students with mild, moderate retardation and students with behavior disorders (O'Connor

et al., 1998). Two of the studies focused on students that the researchers referred to as having reading disabilities (Hatcher, Hulme, & Ellis, 1994). The studies that were chosen for this literature review included studies where over 50% of the subjects were in the first grade and with a mean age anywhere between 4 years of age to 9 years of age. For those studies that reported results for students in several grades in addition to 1st grade, this review focused on the results and intervention for first graders.

Relatively few studies have examined the characteristics of children for whom traditional interventions are ineffective. The literature has referred to these children as having severe reading disabilities or simply treatment resisters (Torgesen, 2000). The theory proposed by Torgesen is that children referred to as treatment resisters differ from other students with reading difficulties primarily due to severe phonological processing deficits and inadequate rate of growth during intensive intervention. Others have supported the assertion that students who have difficulty reading struggle with phonological processing (Moats, 2000). Dickson and Bursuck, 1999 found a strong rationale for the need to support teachers to provide the intensity of instruction needed by struggling readers. These findings support researchers' assertion for the need to continue to explore ways to reach this subgroup of readers within the scope of existing resources in the schools (Vaughn & Linan-Thompson, 2003).

The lack of empirical studies warrants further examination to define student characteristics and to design appropriate interventions. Researchers have recently questioned whether deficits in the areas of phonological processing and rapid letter

naming affect students' response to intervention (Al-Otaiba & Fuchs, 2002). Further study of the characteristics of students' response to intervention is necessary to determine whether a deficit in rapid letter naming as well as a phonological processing deficit can contribute to a student's lack of response to intervention. Dion, Morgan, Fuchs, & Fuchs (2004) have recently indicated that a responsible approach to treatment resisters or non responders would be to include increasingly intensive and multi-level interventions beginning with the improvement of general education. The improved general education instruction must have been implemented with fidelity and can then be conceived of as a primary intervention strategy (Fuchs & Fuchs, 2001). Dickson and Bursuck (1999) worked with teachers during a longitudinal study that implemented a tiered prevention model for students with reading difficulties.

SUMMARY OF STUDIES THAT DESCRIBE READING CHARACTERISTICS OF READING DISABILITIES IN YOUNG CHILDREN

Table 2.1 summarizes all the studies reviewed here that describe reading characteristics of reading disabilities in young children.

Table 2.1 Characteristics of Reading Disabilities Supporting Literature

	Supporting Literature
Predictive studies	Bowers & Swanson, 1991; Hammill, Mather, Allen et al., 2002; Lonigan, Burgess, & Anthony, 2000; Manis, Doi, &

Table 2.1 cont.

	Bhadha, 2000; Meyer, Wood, Hart et al., 1998; Speece, Mills, Ritchey et al., 2003; Torgesen et al., 1997; Wolf et al., 2002; Young & Bowers, 1995
Definitions	Armbruster, Lehr, & Osborn, 2001; Frankenberger & Harper, 1987; Hagtvet, 2004; Lyon, 2003; Samuels, 2002; Torgesen, 1997; Vaughn, Linan-Thompson, & Hickman-Davis, 2003; Vellutino, Scanlon, & Lyon, 2000
Descriptive and Intervention studies	Berninger et al., 1999; Ehri & Robbins, 1992; Dickson & Bursuck, 1999; Gunn, Smolkowski, Bigian et al., 2002; Hatcher, Hulme, & Ellis, 1994; Kasten, 1998; Moats, 2000; O'Connor, Jenkins, Leicester, & Slocum, 1993; O'Connor et al., 1998; O'Shaughnessy & Swanson, 2000; Rashotte, MacPhee, & Torgesen, 2001; Snider, 1997; Torgesen, 2000; Torgesen et al., 1997, 1999; Uhry & Shepherd, 1997; Vadasy, Jenkins, & Antil

Table 2.1, cont.

	et al., 1997; Vandervelden & Siegel, 1997; Vellutino et al., 1996, 2000
Treatment Resisters	Al-Otaiba & Fuchs, 2002; Dion, Morgan, Fuchs et al., 2004; Fuchs & Fuchs, 2001.

EVIDENCE-BASED READING INTERVENTION AND INSTRUCTION

It was essential for this study, to know which interventions are effective with struggling first grade readers. Knowing which interventions are effective for struggling first grade readers is essential also because Juel (1988) indicated that the gap we notice between poor readers and good readers in first grade remains constant throughout 4th grade and that this gap continues to expand as students get older (Stanovich, 1986). Often, these reading difficulties persist into adulthood. First grade is a critical year for reading intervention because the success of remedial interventions beyond third grade is scant (Fletcher & Foorman, 1994; Lyon, 1985). Children who struggle in vain with reading in the first grade soon decide that they neither like nor want to read (Juel, 1988). Allington (1983) reported that good readers read up to three times as many words per day as poor readers, reducing practice opportunities and perpetuating the gap between good and poor readers' ability. According to the NRC's 1998 report (Snow et al., 1998), first grade is the year most children become conventional readers, and most children depend strongly on teachers to guide this transition. Students who enter the upper elementary grades with persistent reading problems have a propensity to exhibit reading difficulties that continue throughout school and beyond (Juel, 1988; Wagner, 1993).

Although 30 years of reading research have documented the critical components of an effective reading program, many students still fail to leave the first grade reading at a level indicative of future success. Less-skilled readers are victims of "Matthew effects" (i.e., the rich get richer and the poor get poorer) primarily because the less-skilled a reader is, the less likely he or she is to want to practice reading, which will improve their opportunities to achieve reading success (Stanovich, 1986). Allington (1984) reported in his article about differing instruction for differently abled readers that often less-skilled readers are asked to read material that is too difficult for them. He goes on to say: "Consider the plight of the poor readers. It seems they are never placed in material which they can read fluently" (Allington, 1977, p. 60). When students fail to acquire early word reading skills, the consequences range from negative attitudes toward reading to less reading practice and missed opportunities for improvement (Allington, 1984; Brown et al., 1986; Oka & Paris, 1986).

Children who possess limited prior knowledge in letter names, phonological sensitivity, phonics, and reading fluency are more likely to struggle while learning to read in the primary grades and are at-risk for reading failure. Learning to read is crucial to academic success (Lonigan, 2003). Fortunately, evidence suggests that instruction in core areas of reading, including blending and segmenting the sounds in words, phonics, and reading fluency can ameliorate these difficulties (Snow, Burns, & Griffin, 1998) for many students in first grade.

Reading research syntheses have clarified the key components of reading and the

instruction that supports successful reading development. The key components of reading include phonological awareness, phonics, fluency, vocabulary, and reading comprehension (NRP, 2000; Swanson, 1999). Literacy research has also clarified the essential nature of phonemic awareness (i.e., conscious attention to the sounds of language) in beginning reading (Adams, 1990; Blachman, 1997; Ehri, 1989). Additionally, the importance of phonemic awareness to beginning reading is clear and supported by a large body of research (Ehri, 1989; Stanovich, 1986). For beginning readers, understanding the relationship between speech and print (i.e., the alphabetic principle) is the key player in reading. Children must achieve the alphabetic principle to be able to sound out unfamiliar words and move into fluent reading. Oral reading fluency can be defined as a combination of reading rate (i.e., speed), accurate decoding, and prosody, which focuses on expression, appropriate phrasing, and attention to punctuation (Archer et al., 2003; Rasinski, 2000). The goal for building fluency is to assist students with the ability to decode text automatically which leaves students free to read for meaning, the ultimate goal of reading (Nathan & Stanovich, 1991).

Automaticity refers to the act of reading words effortlessly because of having mastered word recognition skills (Carreker, 1999; LaBerge & Samuels, 1974; Pressley, 1998; Samuels 1979/1997; Samuels, 2002; Stanovich, 1991). Word reading skills become "automatic" in the sense that they do not require as much attention from the student, thus leaving students with the opportunity to focus their attention on comprehending text rather than decoding. Samuels (1979/1997) published a description of a reading instructional technique called Repeated Reading that initiated a line of research focused

on various reading techniques, which provided students with opportunities for multiple practice and repetition to build fluency. Research suggests that fluency develops when there are repeated opportunities to practice reading (i.e., rereading the same passage) when readers perform the task with a high rate of success (Juel, 1991; LaBerge & Samuels, 1974; Rashotte & Torgesen, 1985; Sindelar, Mondal, & O'Shea, 1990).

Research has also indicated the critical features of effective beginning reading instruction for preventing reading difficulties (Marzano & Pickering, 1999; Snow et al., 1998; NRP, 2000; Swanson, 1999; Torgesen, 2002). Foorman, Francis, Fletcher, Schatschneider, and Mehta (1998) demonstrated that well-balanced and skilled classroom instruction could dramatically reduce the incidence of reading failure in first grade classrooms. Explicit and systematic instruction and the provision of multiple opportunities for practice to build phonemic awareness and phonemic decoding skills are particularly important for children who enter first grade at risk for reading failure. Foorman et al. (1998) found that explicit instruction and multiple opportunities for practicing new skills were particularly beneficial for children at-risk for reading failure. These findings indicated that these instructional conditions were particularly successful with students with the least developed reading and pre-reading skills (Torgesen, 2002).

Using student data to determine instructional delivery for struggling readers is another essential feature of effective instruction to prevent reading difficulties. Assessing students' current level of performance and continually examining student data to determine students' knowledge and skills enables teachers to also group students

appropriately, make instructional decisions, and set instructional goals.

Features of Interventions

The studies reported here differ in terms of methodology (i.e., personnel involved with providing the intervention, duration of the intervention, type of intervention, dependent variable measured). One of the studies reported here provided intervention to subjects. One study utilized community volunteers, one used classroom teachers, and another provided instruction through a special education teacher in a resource room setting. Thirteen of the identified studies incorporated PA instruction as all or part of the intervention. Others taught students to read words by analogy or training in letter-sound correspondence.

In the Gunn and others (2002) study, intervention lasted for 4-5 months during the first year of intervention and then in the second year of intervention, intervention lasted for the entire school year (i.e., 9 months). Intervention consisted of 30 minutes of supplemental instruction given by instructional assistants in small, groups of two to three struggling readers. Reading Mastery (Engelmann & Bruner, 1988) was a reading program chosen for its supplemental instruction that incorporated students receiving direct instruction in PA and letter-sound correspondence. Students also read decodable passages to practice newly learned letter-sound correspondences and build accuracy and fluency. Snider (1997) also individual students via a computer while most of the studies used research staff (i.e., graduate students) to provide instruction evaluated the generalization of previously learned letter-sound correspondences taught in a resource-room. However,

Snider's study was interested in the generalization of decoding skills to the general education classroom's reading basal. Snider (1997) also studied 11 students and described these students as having a discrepancy-based reading disability. The Gunn and colleagues (2002) study had primary group of students defined as at-risk for reading failure.

A two-year longitudinal study designed to further understand previous prevention studies and their findings examined accelerated reading growth in kindergarten, the sustainability of reading intervention effects in first grade, and the overall prevention of reading difficulties (Simmons, Kame'enui, Stoolmiller, Coyne, & Harn, 2003). Simmons and others (2003) wanted to examine the instructional techniques that increased kindergarteners' knowledge of the alphabetic principle and their phonological proficiency. In the first year of the study, 113 kindergarteners that performed in the bottom quartile of seven schools on letter naming fluency and initial sound fluency participated in the study. The students were primarily Hispanic (14%) and white (84%). Researchers randomly assigned students to three interventions (i.e., Code Emphasis, Code and Comprehension Emphasis, and the code element from a commercial program). Educational assistants provided the 30-minute, small group supplemental instruction. Four of the 30 groups received the intervention from a certified teacher rather than an educational assistant. Although the interventions did not prevent all students from experiencing reading difficulties, the findings indicate the potential for successful levels of reading proficiency for children in the bottom quartile in the fall of kindergarten. Both the code emphasis and the group that received instruction from the code element of a

commercial program outperformed the code and comprehension based groups and control groups on measures of phonologic and alphabetic skills. If interventions are focused on the phonological and alphabetic components of our alphabetic system of language, these kindergarteners designated as at risk for reading failure can be on target at the end of kindergarten. Another significant finding of this study is that students' performance on nonsense word fluency at mid year kindergarten strongly predicted how students would perform in first grade. These findings have strong implications for further research and for practice. We now have more information about indicators of student success or lack thereof.

O'Connor et al., (1998) described the results of a phonological awareness training on the PA skills and reading development of students with and without disabilities. One important difference with these studies is that they evaluated teacher-provided intervention in three different settings, the general education classroom, a transitional classroom, and a self-contained special education classroom. O'Connor and colleagues (1998) initially found no significant differences between settings and presence or absence of disability. In a follow-up study, these researchers (O'Connor et al., 1998) reported interesting findings. They found that the vast majority of intervention students with disabilities maintained an advantage over control students with disabilities on word attack and oral reading fluency. However, the intervention students were still behind their non-disabled peers. The non-disabled intervention students did not maintain significant difference gains over the non-disabled control students in the follow-up study. These findings are interesting; they are difficult to interpret because the researchers did not

report fidelity of intervention. In addition, the researchers did not randomly assign teachers to groups; therefore, some amount of teacher effect could have been present.

Rashotte et al. (2001) discussed a lack of improved fluency in their intervention students. Two of the studies reported gains in oral reading fluency (Gunn et al., 2002; Snider, 1997). None of the studies included an intervention that focused primarily on building oral reading fluency. The Gunn and colleagues (2002) study did include reading decodable books to improve accuracy and fluency gradually but did not have a significant focus on building reading fluency. Recently, Crawford, Stieber, and Tindal (2000) have reported correlations between students' oral reading fluency scores on 1-minute timed readings to achievement on high-stakes assessments. Moderate correlations were found by Crawford and other researchers (2000) as well as others' (Chard & Kame'enui, 2000; Nathan & Stanovich, 1991) and this gives some assignment to the significance to the role fluency plays in reading difficulties. Fluency building is an area of intervention research that can provide insight into the research on effective reading interventions for first grade.

What also makes it difficult for researchers interested in student's response to intervention is that much of the research reported does not report specific information related to intervention response. Of those that do report students that do not respond to intervention, typically no description of the student's characteristics is present. Further research should involve a description of the characteristics that might predict students' future response to intervention.

Fidelity of intervention Findings

Five of the twenty studies of effective reading interventions for first grade students report that researchers monitored intervention fidelity in some form (Gunn et al., 2002; Hatcher et al., 1994; O'Shaughnessy & Swanson, 2000; Rashotte et al., 2001). Only one study, however, reported actual percentages of fidelity (O'Shaughnessy & Swanson, 2000). It seems that the lack of fidelity of intervention reporting is prevalent in the area of early reading intervention research. In order to develop further interventions and critically evaluate existing studies, one must know whether implementation of the interventions occurred as described or rather, was teaching adapted to teacher style and student individual needs. Both adaptations would change the findings and the implications for researchers and practitioners.

SUMMARY OF EVIDENCE-BASED READING INTERVENTIONS AND INSTRUCTION

All of the twenty studies reported positive effects on measures of PA and reading outcomes in general. Duration of intervention ranged from four hours to three years. The lengthier studies (Gunn et al., 2002; Kasten, 1998; O'Connor et al., 1998) utilized Reading Mastery with instructional assistants consisting of certified and uncertified teachers from the community of the students they tutored, phonics training in a special education resource room vs. whole language in general education classroom, and classroom teachers training in phonological and print awareness respectively.

Overall, one can draw the following conclusions from the studies reviewed here. It seems that a multi-component reading intervention that incorporates explicit instruction

in PA, word study including practice reading newly learned letter-sound correspondences in decodable text is appropriate for students who begin first grade with difficulties in reading. An additional finding generated by this review is that a greater emphasis on fluency building is needed in early reading interventions and that those students who struggle with reading are often identified by beginning first grade with low naming speed and poor phonological l awareness skills.

SUMMARY OF THE REVIEW OF THE LITERATURE

In this review of the literature, recommendations for the following evidence-based reading intervention can be provided: small group, teacher-directed instruction in a) phonemic awareness, b) word study and phonics, and repeated reading for fluency in a teacher facilitated peer reading as a part of Project ICARE. In addition, teachers of beginning readers attempting to prevent reading difficulties should also be guided to incorporate the following evidence-based methods of instructional delivery: a) explicit instruction b) maximizing student engagement, c) error correction procedures, d) monitoring student progress, and the use of e) appropriate pacing and grouping structures. The purpose of this literature review was to examine studies of teacher change within reading instruction for struggling beginning readers and to present a review of the literature related to evidence-based reading interventions and instruction for struggling beginning readers at risk for reading disabilities. Initially, studies of teacher changes (i.e., reading instructional practices, beliefs, and knowledge of beginning reading components and beginning reading instruction) within efforts to implement evidence-based reading instruction are presented. While we know much about what are known to be effective

reading interventions for preventing reading difficulties, a similar convergence of evidence regarding the utilization of these interventions by general education teachers in first grade classrooms working within a model of school wide reading reform is lacking. However, analysis of data collected during the year I spent with Angelica and Project ICARE can be informed by existing teacher change research. This study focused on the process of an individual teacher's change that Jackson (1992) calls teacher development (i.e., the subclass of changes that are desirable and positive in quality) in the context of a university-teacher collaborative reading improvement model. Deepening teacher knowledge about reading instruction can facilitate teachers' changing practices (McCutchen, Abbott, Green, Beretvas, Cox, Potter et al., 2002) and a change in Angelica's knowledge was examined through discussions and made up a part of the documentation of teacher changes for this study (Senger, 1999). In the past decade, educational reform advocates have increased attention to helping teachers adopt innovative approaches to teaching, in particular, the teaching of reading through professional development.

CHAPTER III

Method

In an environment of the 2001 educational reform, No Child Left Behind initiative of 2001 (NCLB, 2002; Linn, Baker, & Betenbenner, 2002) that requires accountability for both teachers and students in the form of high-stakes student accountability testing and a requirement that every child has a "highly qualified" teacher, the focus on teacher knowledge and instructional practices escalates. In addition, multiple studies have shown that first grade struggling readers often do not improve reading performance without intervention over time (Francis et al., 1996; Torgesen, 1998; Torgesen, & Burgess, 1998). We now have a convergence of evidence guiding our knowledge of reading instruction. Given these findings and reforms, the responsibility of first grade teachers to teach reading is critical. Teachers are being asked to use evidence based reading instruction. Therefore, the purpose of this study is to investigate a first grade teacher and her changing practice as she works to implement evidence-based reading instruction for struggling readers within a school-university collaborative model.

Using archived data, this study employs qualitative, single case study research methodology (Gillham, 2000; Yin, 1994) for examining a general education, first grade teacher's changing practices. These practices are related to the implementation of evidence-based reading instruction for struggling readers while working with a group of

university researchers on a first grade reading intervention project. Specifically, this study uses data collected during the year that a first grade teacher implemented reading interventions (i.e., phonological awareness, word study, and fluency interventions) to document a teacher's changing practice while implementing effective reading instruction for struggling readers as a result of the university/teacher collaborative relationship as well as the factors that were facilitators and barriers for this teacher's implementation of evidence-based reading practices for struggling readers. The teacher change case study described herein is an attempt to understand the factors that can determine success or failure of a school wide reading improvement model through the description of one teacher's change process. This desire led to the following research questions that this study was designed to answer:

1. What changes in a first grade, general education teacher's reading instructional practices occurred because of a year long university-teacher collaborative relationship in implementing evidence-based reading instruction for struggling students?

2. What were the facilitators and barriers for implementing evidence-based reading practices for struggling readers?

This chapter describes the methodology for the study including: (a) research design, (b) participants, (c) instrumentation, (d) data collection procedures, and (e) data analysis procedures.

RESEARCH DESIGN

I utilized a qualitative single case study design using archived data and primary and secondary analysis in this study (Corti, Witzel, & Bishop, 2005; Miles & Huberman, 1994). Case study methodology was chosen because case studies are detailed investigations of individuals, groups, institutions or other social units wherein the researcher conducting a case study attempts to analyze the variables relevant to the subject under study (Polit & Hungler, 1983). In addition, a case study is appropriate for this study because the focus may not be on generalization but on understanding the particulars of that case in its complexity. Merriam (1998) defined a case study as an examination of a specific phenomenon such as a program, an event, or person and that the focus is on insight, discovery, and interpretation. Yin (1994) defines a case study as an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not evident and in which multiple sources of evidence are used.

Case study focuses on a bounded system, usually under natural conditions, so that one can understand the system in its own habitat (Stake, 1988). This case study was an investigation of a "phenomenon" (i.e., a teacher attempting to implement evidence based reading interventions) that occurs in a "bounded context" (i.e., a phenomenon that cannot be understood outside of the context in which it takes place).

A recent publication of the task force on quality indicators for special education research, guided by the division for research of the Council for Exceptional Children,

indicated that high quality special education research should provide an understanding of how evidence-based practices that we are asking teachers to implement work in the "real world" context (Odom, Brantlinger, Gersten et al., 2005). Although researchers are calling for experimental research models as the best method to achieve causal results, many agree that within educational contexts, the likelihood of being able to determine causal results is low. Recently, we have also begun to pay attention to the "actual-sequence" explanations of research reporting, suggesting that this method of explaining how students arrived at a certain situation is more amenable and acceptable to the thought processes of teachers (Stanovich, 2003). In the collaborative model of professional development studied here, teachers' learning can be grounded in the practical work that they do, and research is no longer viewed as being divorced from the realities of classroom life.

Merriam (1998) describes a qualitative study as one that is defined by five characteristics: (a) understanding the phenomenon of interest from the perspectives of the participants rather than that of the researcher, (b) researcher as the instrument of data collection and analysis, (c) fieldwork involvement, (d) interest in building theories rather than testing theories (i.e., inductive), and (e) data collection procedures that primarily capture words rather than numbers. A naturalistic approach to qualitative research focuses on gaining a depth of understanding by studying a situation as it develops in its natural context and detailed (i.e., thick description collected over an extended time period) without the constraints of preconceived hypotheses (Patton, 2002). This study examined how the collaborative relationship with the university researchers influenced

the teacher's implementation of effective reading instruction and instructional practices. As Odom and colleagues (2004) indicate, high quality education must be based on high quality research and this will increase the likelihood that truly evidence-based practices make it into real world contexts, The possibility of translating evidence-based reading instruction into classroom instructional practice is situated within individual teachers and cannot be fully understood outside of the context of the teachers' classrooms.

Lather and Moss (2005) discuss the search to improve educational practice through educational research, the need to address the complexities of applying research in classroom contexts, and the necessity of creating research standards for these research conditions. No single research study or program of research will definitively answer questions that have caused educators concern (Hoffman, Roller, Maloch, Sailors, Duffy, & Beretvas, 2005). However, case study research is an appropriate methodology when studying several variables and the real-life context within which a studied phenomenon occurs (Yin, 1993; Gillham, 2000). When the study of interest is intertwined with its context (i.e., bounded), a case study, qualitative or quantitative, is an appropriate method of inquiry (Merriam, 1998). Thus, the study of a teacher trying to implement instructional changes in the context of her classrooms is appropriately investigated within the strategy of case study. Within this case study, one first grade general education teacher involved in a year long professional development collaboration was the unit of analysis or "case". The questions that this study explored require an examination of the environment in which change occurred as well as the variables that contributed to this teacher's change.

The purpose of this case study was an in depth examination of the implementation of evidence-based reading instruction by one first grade teacher within the context of her classroom during an intensive university/teacher collaboration. The strength of case study methodology lies in its ability to explain the situations, which take place within a real-life environment with all of the complexities accompanying school-based research. In addition, case study research has shown an ability to describe the context within which policy changes occur (Yin, 1994) making this an appropriate method of research for the proposed study. Although this case study used archived data from primary sources (i.e., interviews, observations, team meeting notes), a secondary analysis also took place (i.e., data that were collected for another study are now used to answer different questions). Secondary analysis involves the use of existing data, collected for the purposes of a prior study, in order to pursue a research interest, which is distinct from that of the original work; this may be a new research question or an alternative perspective on the original question (Hinds, Vogel, & Clarke-Steffen, 1997; Szabo & Strang 1997). In this respect, secondary analysis differs from systematic reviews and meta-analyses of qualitative studies which aim instead to compile and assess the evidence relating to a common concern or area of practice (Popay, Rogers, & Williams 1998). The methodology drew from case study techniques outlined by Yin (1993, 1994), Gillham (2000), Stake (1995); and other analytic techniques described by Strauss and Corbin (1998); and Miles and Huberman (1994). The study utilized a naturalistic approach to inquiry using qualitative data collection procedures of archived data and qualitative content analysis. Archived data were used because for this case study, data collection has already occurred.

PARTICIPANT

The "Case"

The limitation of the study to a single object or case (Merriam, 1998) defines case study research. The "object" of this study was a first grade teacher (Angelica) who took part in a year long university-teacher professional development project. Archived data collected spans the time this teacher spent in a year long collaborative professional development project with university researchers.

The professional development that Angelica received in guided reading and balanced literacy occurred through the district's Academic 2000 grant that targeted the district's lowest income and lowest performing campuses. These campuses then received a reading coach who provided onsite professional development and other forms of professional development and support. The Academics 2000 funding was provided through the Goals 2000: Educate America Act for planning and implementation of initiatives to improve reading, including intensive and sustained professional development in research-based instructional strategies and methodologies. The teachers chosen to participate were expected to provide mentoring and support to other teachers on their campuses. The reading coaches on each campus were to give training and to support teachers in using the targeted skills in the classroom. Coaches who received the training were then asked to provide training and support to classroom teachers. Material covered in these training and support sessions included components of Balanced Literacy and Guided Reading. As a part of schools' selection for this funding, teachers received

leveled books and materials designed to work with the Guided Reading model and the DRA (Beaver, 1995; 2006). The DRA (Beaver, 1995; 2006) is designed to provide guidance for teachers working with students within the guided reading model and a balanced literacy model or a literature based literacy model.

I chose Angelica as a case of interest because of her success working with students during the 2001-2002 project year who began the year with below benchmark scores in the areas of phonemic segmentation fluency and letter naming fluency. I chose her for deeper study after the primary study project year as we (university research team) engaged in retrospective discussions about the success of teacher implementation. Students who are identified early as having a deficit in phonological awareness and rapid letter naming (i.e., having a double deficit in reading) will often struggle with learning to read and continue to achieve at levels below typically achieving children (Wolf, Goldberg, & Gidney et al., 2002). These are the students often most at-risk for reading failure and most likely to eventually have identified reading disabilities. Angelica's efforts were remarkable because she provided early intervention in the general education classroom to prevent reading difficulties before the mandates of Reading First and No Child Left Behind were operationalized at the school district and campus level.

Setting

The school in which Angelica taught had a large population of at-risk students as determined by family income, language proficiency, and achievement factors. The setting is an urban school district in the southwestern United States near a large university. The

school participated in a federally funded reading project in collaboration with the University. Table 3.1 provides detailed information regarding Angelica's classroom and school setting.

Table 3.1 Classroom and School Setting

Demographic Category	Classroom	School
African American	33%	27%
Hispanic	54%	68%
European American	13%	5-6%
Asian/Pacific Islander and American Indian	N/A	<1%
Economically Disadvantaged	100%	90%
English language learners	N/A	61%
At-risk	71%	62%

The Primary Study: Project ICARE

This case study emerged from a primary investigation, Project I CAN READ (ICARE) that researchers designed to establish an early reading intervention model (grades K-3) and to study the effects of these interventions on the prevention and remediation of reading difficulties. Project ICARE was a quasi-experimental study with a

comparison school and at the experimental site, a model demonstration program was designed to implement and evaluate components of reading instruction for English and Spanish-speaking students in grades K-3. The project focused primarily on the critical features of Reading instruction for Grades K-3 (i.e., phonemic awareness, phonics, fluency, comprehension, and vocabulary). In addition, the project focused on incorporating the critical features of instruction (e.g., grouping, corrective feedback, systematic and explicit instruction, modeling, advance organization, and progress monitoring) (Texas Center for Reading and Language Arts, 2000). It consisted of a multi-level instructional format and professional development in the form of university-teacher collaboration. Project ICARE also scaled up across grade levels for K-3 reading instruction meaning the researchers followed the same students each year but worked with different teachers between fall 2001 to fall 2004. Table 3.2 shows the activities of Project ICARE and the time frame and Table 3.3 represents the components of the ongoing professional development.

The goals of Project ICARE were to evaluate the effects of reading instruction on students' literacy abilities as measured by reading outcomes and implement the model demonstration reading instruction program for at-risk (i.e., Level 2) students. The model demonstration site provided a collaborative professional development model to support teachers' implementation of effective reading interventions. One part of the intent for this project was to determine the exact components of a successful schoolwide reading improvement project. My particular interest in the case studied here, occurred because of my interaction with the primary study.

There were approximately 198 students in this primary study. There were six teachers involved. Project personnel assessed individual students several times throughout each school year to determine the effectiveness of the intervention and conducted teacher observations and intervention validity checks (IVCs) to ensure uniform implementation of the interventions.

Table 3.2 Activities and Time Frame

Activity	Time Frame 2001							2002				
	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Professional Development (PD): Summer Reading	X	X	X	X									
PD1: 3 hour workshop				X									
STM: 45 minutes weekly through Dec. and then every other week					X	X	X	X	X	X	X	X	X
Observations, in-class coaching, and modeling (OBS & ICM/C)						X	X	X	X	X	X	X	X
Intervention validity checklists (IVCs)					X	X	X	X	X	X	X	X	

Table 3.3 Components of the year long collaborative professional development model.

Type of PD	Description and Focus	Duration
Introductory meeting	An introductory meeting outlined the project and activities to come with an invitation for first grade teachers to participate.	2 hours
Readings	Articles about reading research relevant to first grade teachers mailed to participating teachers to read in preparation for first meeting.	Summer
PD workshop (PDW 1)	Instructional adaptations and phonological awareness instruction workshop provided to teachers including a video demonstration.	3 hours
Support tea[1]m	Teachers and university personnel met weekly and then	Ongoing

[1] Note: The order of introduction of interventions within Project ICARE was the same for each teacher, including Angelica.

Table 3.3, cont.

Type of PD	Description and Focus	Duration
meetings (STM)	biweekly to discuss concerns, data, and hold topic specific meetings.	2001-2002
In-class modeling & coaching (ICM/C)	University personnel modeled, co-taught, and observed teachers to provide feedback within the language arts block 3-4 times a week.	Ongoing 2001-2002
Teacher experts	Teachers were asked to "showcase" specific activities, management techniques, or ideas at STMs.	Ongoing 2002-2003

Professional Development

Initial Training/Initiating the Project. Six first grade teachers were taught research-based reading interventions to help struggling readers in their classrooms: (a) an oral reading fluency building intervention called Partner Reading, and (b) a multi-component reading intervention consisting of small group, teacher-directed instruction in phonemic awareness and word study. The year long collaborative professional development project provided a model to support teachers' implementation of effective reading interventions. University researchers provided professional development to teachers in the form of a 3-hour orientation session at the end of the previous school year and articles about beginning reading and the features of effective instruction like grouping that were sent home for reading and study during the summer. The articles given to Project ICARE teachers were:

1. *Speed does matter in reading* by Timothy Rasinski (2000); an article intended to increase the level of awareness of the importance of reading rate as one of many tools for assessing overall reading performance. Fluency building activities that can be integrated within existing reading programs are provided; and another fluency article by Mastropieri and Scruggs (1999) that reviews research on reading fluency and provides recommendations for practice;

2. One article about scaffolding text for beginning readers (Brown, 1999/2000);

3. *Phoneme awareness and the role of the educator* (Jerger, 1996) about phoneme awareness instruction;

4. A Chard & Osborn (1999) article about evaluating the content and instructional plans for phonics and word recognition reading programs; and

5. Louisa Moats' (1999) article Teaching reading IS rocket science: What expert teachers of reading should know and be able to do.

At the beginning of the school year, university researchers conducted a four hour professional development session with all of the first grade teachers. The session consisted of a debriefing and review of the articles that were mailed over the summer, a teacher knowledge survey and a discussion about the current structure of each teacher's language arts class. Then, the principal investigator of the primary study conducted training on making adaptations to reading instruction using phonemic awareness instruction as an example and a videotape example of a teacher using this particular intervention.

The school-university collaborative focused on six first grade teachers who were taught evidence-based reading interventions to help struggling readers in their classrooms. These practices were: (a) an oral reading fluency building intervention called Partner Reading and (b) a multi-component reading intervention consisting of small group, teacher-directed instruction in phonemic awareness and word study. The year long

collaborative professional development project provided a model to support teachers' implementation of effective reading interventions. At the beginning of the school year, when Project ICARE commenced, university researchers conducted a four-hour professional development session with all of the first grade teachers. The session consisted of a debriefing and review of the articles, the completion of a teacher knowledge survey, and a discussion about the current structure of each teacher's Language Arts class. Then, the principal investigator of Project ICARE conducted a session on making adaptations (i.e., scaffolding instruction, differentiation) to reading instruction using phonemic awareness instruction as an example (University of Texas Center for Reading and Language Arts, 2002). A videotape example of a teacher using Say It, Move It (First Grade Teacher Reading Academy, Texas Center for Reading and Language Arts, 2002) the phonemic awareness intervention used to demonstrate the concept of making adaptations was reviewed with the teacher. The principal investigator of Project ICARE presented the concept within an adaptation framework (Reading Instruction for Struggling Elementary Readers: Research Based Practices, UT System/TEA, 2001).

Support Team Meetings. Subsequent professional development consisted of weekly support team meetings, modeling, and coaching sessions conducted within the teacher's classroom. Feedback was provided oftentimes immediately during observations of interventions. The professional development encompassed an entire school year and included weekly hour-long support team meetings with members of the research team, the teachers, and the school's reading specialist. During these meetings, the interventions

were introduced and modeled for the teachers. Appendix A is a table that presents a compilation of the support team meeting topics.

Research team members followed these intervention introductions with modeling of the techniques in the classroom, co-teaching of the interventions, and observation with feedback. Professional development also included discussion of conceptual components underlying evidence-based early reading instruction and methods of assessing and monitoring progress. Student progress graphs, which contained data collected by the researchers, were discussed with the teachers several times during the year. Teacher concerns were discussed at subsequent support team meetings, and modifications or adaptations of materials were proposed and tried in the classrooms.

PROCEDURE AND DATA COLLECTION

Data collected included the types of qualitative data Patton (2002) identified: (a) interviews, (b) observations, and (c) documents. Odom et al (2005) describe three primary techniques used in qualitative research. They are interview, observation, and document analysis. For this study, archived interviews, field notes, and observations were analyzed to develop a sense of having been there and to provide thick description to tell the story of the teacher during this year of professional collaboration (Guba & Lincoln, 1989; Patton, 2002). Quality indicators for each of these techniques guide qualitative researchers to establish readers' confidence in conclusions drawn by documenting the trustworthiness and credibility of the analyses of qualitative research data (Odom et al., 2005).

Data Sources

This study examined how a general education teacher proceeded to offer intensive reading instruction with collaborative university support and how she implemented evidence-based reading instruction. I determined the degree of teacher change by examining the data collected. Table 3.4 presents the data sources employed in this study and the time frame in which they were conducted.

Table 3.4 Teacher Information: Data Sources and Time Frame for the Academic Year 2001-2002

Data Sources	Fall	Winter	Spring
Teacher Knowledge Survey (TKS)	X		
Teacher interview (TI); Fall Teacher Interview (FTI); Spring Teacher Interview (STI)	X		X
Field Notes (FN)	X	X	X
Research Team Meeting Notes (RTMN)	X	X	X
Support Team Meeting Notes (STMN)	X	X	X
Teacher observation of reading instruction (OBS); Fall (FOBS); Spring (SOBS)	X		X
Intervention Validity Checklist – Observations of Fidelity of intervention implementation (IVC)	X	X	X

The data in this study were the words of the teacher, (i.e., the dialogues between Angelica and her peers, Angelica and the researchers, and the rich description derived from observation, field notes, and research team meeting notes). For this study, archived interviews, field notes, and observations were analyzed to develop a sense of having been there and to provide thick description to tell the story of the teacher during this year of professional development and collaboration (Guba & Lincoln, 1985; Patton, 2002). This allows readers to view the situation from the perspective of the participant and facilitates the reader's making inferences to his or her own context (Guba & Lincoln, 1985).

The initial data collection, from which the archived data for this study was derived, occurred as a part of the primary study. From my work within this study, the idea of a hypothesis grounded under the conceptual framework of teacher change began. It is within this framework that a method of theory building begins. For this study, this means that I did not anticipate what I would find from my analysis of the situation. Instead, I allowed the issues of understanding the teacher's perspectives of the purposes of the reading interventions, her understanding of the underlying principles of the interventions, and the resulting uses she made of the interventions to emerge from the teacher's interviews, field notes, support team meeting notes, research meeting notes, and observations of her reading instructional practices in the classroom (i.e., the field). Multiple data sources – structured and unstructured interviews, biweekly descriptions of teacher-researcher dialogue about the implementation of new practice (i.e., support team meetings), classroom observations, intervention validity checklists, research team meeting notes, and other forms of documentation – constituted the triangulated evidence

in this study.

Interviews. Structured interviews were conducted twice a year (i.e., Fall 2001 and Spring 2002). The initial interview was an examination of teacher knowledge about reading and the spring interview primarily focused on issues of implementation and response to the project. Unstructured interviews refer to informal conversations that occurred between the researchers and teacher that have been referenced in email conversations between members of the research personnel and research team meeting notes. Focused interviews were conducted at the beginning and end of the study and informal conversational interviews were held throughout the study.

Focused interview in this instance means that the questions were pre-formulated. University researchers designed the fall interview to gain information about teacher knowledge. The spring interview was interested in any changes made throughout the year. The year long professional development collaboration began and ended with structured interviews of the participating teachers. The structured interviews with Angelica lasted an hour each time. University researchers told teachers the nature of the project before the interviews and interviews were audio taped. The transcripts from Angelica's interviews were used for analysis in this study. These archived data from the primary study were compiled and analyzed as a part of this qualitative case study. Appendix B provides the interview questions for both the fall and spring interviews.

Classroom Observations. University researchers conducted observations of the teacher-participants in their classrooms using the documentation of field notes (i.e., a

running record of everything that took place during the language arts block). Initially, two university researchers conducted the observations together to establish interrater reliability. Support team meeting notes derived from the weekly meetings with the teacher-participants and university researchers were taken and were compiled for analysis within this case study. An electronic field-notes log was kept over the duration of the year long professional development collaboration by the research team and was compiled for study.

Prolonged engagement means that the researcher spends a sufficient amount of time with the participants to gain their trust, to detect distortions that the presence of the research brings, and to understand how the situation (i.e., the classroom) influences participant behaviors (i.e., the teacher's use of interventions) (Lincoln & Guba, 1985). Persistent observations allow the researcher to develop a sense of what is relevant to the study and provide in depth experience of the teacher within her classroom context. Lincoln and Guba (1985) describe the power of observation as the ability of the inquirer to view situations from the eyes of the informant. For the observations, field notes were recorded during formal observations. In addition, electronic field experience logs of notes were written after the time of the observation, modeling, or co-teaching experiences (i.e., collaboration) during the year long professional development. Collaboration times lasted up to 5 hours per week with Angelica during the early stages of the primary study to develop a sense of the important contextual issues such as interruptions during instruction, class size, and heterogeneity of student abilities (Lincoln & Guba, 1985). Because the focus of the study was reading, the observation and collaboration times

covered the 90-minute language arts block of instruction.

Classroom Observational Tool. Classroom observations were conducted by collecting field notes consisting of writing down everything observed in the classroom and then using an observational tool based on previous work (Dickson & Bursuck, 1999) to classify teacher behaviors related to primary grade reading achievement. The field notes were inputted into the classroom observation tool (see Appendix C) to organize the information derived from the field notes into components of effective instruction and reading instruction in general. Archived records of classroom observations were analyzed using a matrix recommended by qualitative researchers (Miles & Huberman, 1994) and created with the HyperText program.

The classroom observational tool attempted to document components of effective reading instruction, activities taking place in the Language Arts classroom, time spent on teacher instruction, and time spent on other non-instructional activities. I took field notes while observing during the ninety-minute language arts period with an attempt to document all activities and instruction that took place during this time. Another university researcher and Project ICARE's consultant on schoolwide reading reform collected notes simultaneously as an interrater reliability check. Two formal observations were conducted over the course of one school year and were included in the archived data used for data analysis. As a part of this case study's analysis, I took the archived field notes and input information into the classroom observational tool as well as a qualitative analysis software program – HyperText to help create the data matrices for analysis.

Fidelity of Intervention. The Intervention Validity Checklists or IVCs were conducted to ensure that students are receiving the intervention as reported and to rule out variance in fidelity of implementation as a variable in the measure of student progress. IVCs were conducted as a part of the primary study. An IVC was conducted to check the validity of teacher-directed small group instruction in phonemic awareness and word study. An IVC was also conducted to check the validity of the partner reading fluency intervention. These IVCs were accessed as a part of the data analysis within this case study.

Documents. Document collection, often used in archival research, occurs as a part of this case study. Written data sources consist of meeting notes from university research team meetings and university-teacher support team meetings. Information gleaned from these documents describes Angelica's changing instructional practices while implementing evidence-based reading practices for struggling readers within a school-university collaborative.

Research Team Meeting Notes and Support Team Meeting Notes. The Research team meeting notes were read and analyzed within the HyperText program. The team meeting notes provided insight into how the relationships with Angelica and the university researchers evolved observations about teacher change and student progress, and the evolution of instructional procedures. The research team meeting notes corroborate other aspects of the data collection. For example, the research team meeting notes might reveal a discussion about student progress and assessment scores. Then,

support team meeting notes might provide data about a discussion with Angelica regarding student progress and the data collected from student assessments. The analysis of these meeting notes could provide interesting insight into the factors surrounding a her changing practices by revealing a more in-depth documentation of changing practices than a formal interview could reveal.

CLASSROOM INTERVENTIONS

The classroom intervention was developed during research team meetings in response to needs assessments gathered informally from support team meetings and informal classroom observations. The biggest determinant, however, was the assessment results gathered during pre-testing and progress monitoring. The classroom intervention was designed to be responsive to student and teacher needs. For example, the English classroom assessments showed students having great difficulty with phonemic segmentation. Therefore, the focus for those classroom teacher's interventions began with phonemic awareness instruction. However, the research team also noted during support team meetings and conversations with teachers that small group instruction proved very difficult for them to manage. Because research evidence indicates that first grade students are more engaged and more successful when provided with intervention in small groups and pairs (Edmond & Briggs, 2003), teacher-directed small group instruction was essential to the project. Efforts to assist teachers through collaboration were planned.

During the first grade, students deemed at-risk for reading failure according to pre-test reading outcome data received intensive teacher-directed phonological awareness

and word study instruction in a small group of three to four students. These students also worked with a partner building fluency in connected text using a modified version of partner reading (Delquadri, Greenwood, Whorton, Carta, & Hall, 1986).

Phonological Awareness

The teacher-directed small group instruction consisted of instruction and practice with phonological awareness skills, in particular, phonemic awareness skills. The skill of segmenting and blending was the focus of this instruction and an activity called *Say It, Move It* was used to teach this skill. *Say It, Move It* involved a mat and manipulatives used to provide abstract representations of sounds in a word. Teachers model a word and then model segmenting and blending the word, students practice with the teacher and then independently. This occurred 4 times a week for 3-5 minutes each session.

Word Study

Word study instruction consisted of letter-sound/letter-combination correspondence, word building by blending onset-rime spelling patterns, rapid isolated word reading with words containing the targeted spelling patterns, reading decodable, connected text that contained the targeted spelling patterns, and writing words in personal word walls. The practice four to five times a week building letter naming fluency initially and then eventually practicing rapidly naming blends and words. Teachers would then model, practice with and allow students to practice novel letter-sound correspondences and building words using word patterns.

Students then read decodable text and ended the 20-25 minute session with writing and correctly spelling words taught in previous lessons.

Fluency

In addition to the word study, teacher-directed instructional time, students also engaged in a modified version of partner reading three times a week. Partner reading paired a more skilled reader with a less skilled reader for repeated reading with guidance and feedback. This method of repeated reading consisted of the stronger reader modeling the passage for the less skilled reader and correcting the less skilled reader's errors when the less skilled reader read the same passage. Appendix D presents a Partner Reading script and the procedures that Angelica followed.

Instructional Practices

The practices that are part of what make an effective lesson (i.e., assessing progress, explicit, systematic instruction, and use of manageable steps, scaffolding instruction, and grouping for instruction) were utilized in the small group instruction that made up the intervention activities for Project ICARE. For each activity, Angelica followed a specific pattern of modeling, guiding practice, and providing independent practice. Each time students participated all students in the group answered, thereby maximizing all students' opportunity to respond and practice.

Teaching Procedure. The Model-Lead-Test instructional sequence was used to introduce new skills. The Model-Lead-Test sequence is highly effective to demonstrate

skills to be learned, to guide students through an activity to practice the skills together with the teacher (guided practice), and to monitor student progress to ensure that students are correctly learning skills to mastery. Additionally, corrective feedback was implemented when incorrect responses were generated; corrective feedback consisted of modeling the correct response and having the student repeat the correct sound or word. The Model-Lead-Test teaching procedure has been well researched and validated in studies with struggling students for a number of years (Carnine, Silbert, Kame'enui, & Tarver, 2004; Rosenshine, 1986; Vaughn & Linan-Thompson, 2003; Watkins & Slocum, 2004).

Pacing. Keeping instruction on track and moving along at a "perky pace" was stressed on two levels. First, instruction needed to be delivered in a way that kept student attention and did not allow for long pauses and wasted instructional time. Second, each component of instruction had a designated amount of time allocated. Angelica used a timer to monitor her pacing of instruction.

Grouping. Word study instruction occurred in small, teacher-directed groups of three to four students who possessed similar decoding abilities and instructional levels. For example, students who were working on initial blends and short vowel sounds in consonant blend-vowel-consonant patterns would be grouped together. All of the afore-mentioned methods of classroom interventions and instructional practices were new practices to Angelica. Her changing instructional practices as she implemented these new practices were examined.

DATA ANALYSES

As Stake (1995) noted, knowledge gained in an investigation "faces hazardous passage from writer to reader. The writer needs ways of safeguarding the trip" (p.241). Several strategies were used to enhance the trustworthiness of this qualitative case study.

Classroom observations, support team meeting notes, research team meeting notes, and IVCs documenting the activities and instructional/collaborative environment were coded and emergent themes analyzed and organized according to the procedures outlined in Miles and Huberman (1994). Particular attention was paid to the extent to which teacher implementation represented fidelity of the intervention (IVCs) recommended within the primary study and the correlation with the features of effective instruction outlined in the observational tool. Data were analyzed closely to generate a conceptually dense picture of other theories that may emerge (Strauss & Corbin, 1998). The emergent and collaborating evidence support answers to the research questions. Data were analyzed using Glaser and Strauss' (1967) conceptualization of grounded theory and following both inductive and deductive coding techniques and procedures of Strauss and Corbin (1998). Grounded theory analysis is appropriate for explaining behaviors and understanding issues.

Grounded Theory. Development of theory grounded in data means coming to the research project with no preconceived theory or hypothesis. Instead, theory generation is an ever-developing process in which hypotheses emerge from, or are grounded in, the data itself (Glaser & Strauss, 1967). Miles and Huberman (1994) describe this process as

interactive and cyclical flows of activity that begin early in the development of the study and continue through the reporting stage. Strauss and Corbin (1998) conceptualize data analysis similarly as an ongoing and recursive process involving four analytic tasks: (a) conceptualizing, (b) discovering categories, (c) discovering the central category, and (d) refining the theory. I followed a modified version of this process for analyzing data because I was beginning with a primary conceptual framework of teacher change (Stake, 1995).

The purpose of this study was to determine the change process of an individual general education, first grade teacher. Grounded theory was applied to this study in attempts to generate a theoretical framework of individual teacher change within a teacher-university collaborative environment. I used HyperText, a qualitative data analysis software program to facilitate the generating of this framework.

Conceptualizing. The process of identifying concepts in the data is called conceptualizing. Concepts are the abstract labels or names given to discrete ideas, events, and happenings that emerge as significant in the data (Strauss & Corbin, 1998). The process of conceptualizing involves breaking down the data into these discrete ideas and giving each a name or code. The purpose of giving these labels, or codes, is then to discover the relationships between the specific concepts (Strauss & Corbin, 1998). This method of abstracting moves beyond merely describing an event or a context to building theory from it. I started by identifying and naming concepts. Names for concepts came from my participant (i.e., taken directly from the transcribed data). These are called *in*

vivo codes (Glaser & Strauss, 1967). Other codes came from the images I developed myself or as a part of the peer examination as I analyzed the data (Strauss & Corbin, 1998). First, the interview and observation transcripts were coded into categories, which were descriptive or interpretative (Miles & Huberman, 1994) by using a combination of manual and computer-aided methods. I worked with the research team of Project ICARE and later used HyperText, a software tool that supports the development of hierarchical categories of coding. We used a methodology of grounded theory and progressive focusing (Glaser & Strauss, 1967) to analyze the main data. Using HyperText allowed me to keep a detailed electronic logbook to aid the development of concepts and categories and to allow me to trace the research process, progress, and where data triangulated to converge upon a theme or category.

Discovering Categories. The second phase of analysis was a reduction phase (Strauss & Corbin, 1998). During this phase, I reduced the number of units I am working with by grouping the concepts I have identified into categories. Categories are more abstract, higher order concepts that help explain phenomena (Strauss & Corbin, 1998). Phenomena are repeated patterns of response to situations or events (Strauss & Corbin, 1998). Keeping in mind the focus and context of my research, I asked myself, "What is going on here? What is the phenomenon that these concepts stand for?" The procedures and techniques of a grounded theory approach which involved: 1) identifying 'concepts', 2) capturing the individual teacher change process as were described by the quotations, incidents, and conversations and, 3) deriving theoretical interpretations from data to develop a picture of Angelica's changing practices.

Subcategories. Categories can be divided further into subcategories. Subcategories answer questions about the phenomenon that is under study. Categories and subcategories can be further specified with detailed definitions within a code book. Names for categories may come from several sources. I used the three sources described by Strauss and Corbin (1998): (a) concepts discovered in the data, (b) terms from the literature, and (c) *in vivo* codes that come directly from the words of the participant-teacher.

Discovering the Central Category. Theory evolves as the data become integrated through the process of analysis (Strauss & Corbin, 1998). This integration begins with analysis of the first data and continues until the central category is discovered. The central category is the researcher's interpretation of the main themes of the research (Strauss & Corbin, 1998). Strauss and Corbin (1998) outline the criteria for discovering the central category. The central category is: (a) related to all the other categories, (b) an explanation that flows logically and consistently from other categories, (c) a label which is sufficiently abstract to relate to other research, (d) an explanation that grows stronger as it is refined analytically, and (e) an explanation of variation (i.e., contradictory data). Because I already had an idea what to expect from educational reform, university-teacher collaboration, and teacher change theory, I entered this process with certain guiding thoughts, however, keeping in mind the purpose of creating these categories (evolution of the data), I attempted to keep an open mind about what ideas flowed from the data collected during the study.

Refining the Theory. When theories have developed from the process of analysis, one must verify conclusions or test for believability. Strauss and Corbin (1998) call this technique validating. Researchers may examine early conclusions with skepticism, but may confirm these conclusions as analysis continues throughout the study. The method of verification use is to return to the original data, the transcriptions of interviews and field notes from observations, to review and confirm the theories that are developing.

Trustworthiness. Trustworthiness is a concept useful for judging the quality of qualitative research. Within this concept, there are four criteria (Lincoln & Guba, 1985; Mertons, 1998). The four criteria were addressed in this study: (a) credibility, (b) transferability, (c) dependability, and (d) confirmability.

Credibility refers to the correspondence between the perceptions of the respondents (i.e., the participants) in the study and that of the researcher (Guba & Lincoln, 1989). I demonstrated credibility through peer debriefing and triangulation. Peer debriefing is a process of discussing with peers who are knowledgeable but not involved in the study the findings, working hypotheses, methodology, and problems that might occur as the study progresses (Guba & Lincoln, 1989). Throughout the analysis of the data compiled for this study, I met with a debriefing group made up of doctoral students from the learning disabilities area in the Department of Special Education and the language and literacy area in the Department of Curriculum and Instruction who are familiar with research-based reading interventions and staff development. My debriefing group also helped me monitor changes in my own perceptions that might lead to biases.

This technique provided a method of checking that my developing constructions coincide with those perceptions of my respondent (Guba & Lincoln, 1989). Another way I validated is to tell the theoretical scheme to my peer examination group to get their comments and see if they matched my perceptions. Members of the research team from the primary study were asked to comment on the findings as they emerged. In addition, a collaborative research effort designed the fall and spring interview questions for the formal interviews that took place. A collaborative team effort also was utilized for the first pass of coding and interpreting Angelica's fall interview.

Triangulation is the process of checking and comparing information from several sources, methods, investigators, or theories. For this study, I used several sources of data; interviews, meeting notes, electronic field notes, and observations. These types of comparisons helped me understand inconsistencies in findings from the different sources as well as served as a check for accuracy in the data. Patton (1987) discusses the triangulation of various sources of evidence. The data gathered from different sources during this study were triangulated to represent findings that represent converging evidence. One of the strengths of case study research is the use of multiple sources of evidence (Yin, 1994) and this case study used three archived sources of evidence as a means to answer the research questions posed. They were document analysis of research and support team meeting notes, classroom observations, and teacher interview data.

Transferability is a process for checking the degree of similarity between contexts. Qualitative research uses the method of thick description to allow the reader to

make a judgment of similarity of his context to that of the study and therefore infer any parallels. The lack of generalizability to populations was not of concern in this study or in case study research. Rather, the context specificity of data collected, the meaning of processes that lead to outcomes, the importance of context in shaping behavior, a search for evidence within context, and the meanings of changes that have occurred are the focus of qualitative case study research and this study (Gillham, 2000). Dependability is the extent to which the procedures of the study can be replicated and may be demonstrated by operationalizing the steps in the research process (Yin, 1994). I outlined and documented each step in my process of compiling data and analysis so that changes occurring in the course of the study can be audited or confirmed by outside experts (i.e., the Dissertation Committee) as appropriate (Guba & Lincoln, 1989; Lincoln & Guba, 1985; Mertons, 1998).

An expert audit should also be able to track qualitative data to its source (i.e., confirmability) (Mertons, 1998). Data should support interpretations of any qualitative study. I provided explicit explanations of the logic I use in reaching interpretations in order to confirm my conclusions.

The instrument of data collection in a qualitative study is a human being (Patton, 2002). The strengths of researcher-as-instrument are the adaptability and responsiveness that human beings have to interact with situations and the ability to collect data on multiple levels simultaneously and explore responses that do not seem to fit the data. A possible limitation of researcher-as-instrument is the intersubjectivity that occurs.

Intersubjectivity refers to the shaping or changing of values, attitudes, and understandings that occurs between researcher and participants because of the intrusion of the researcher into the situation. The development of self-awareness in the process of the research is an asset to qualitative research (Patton, 2002). Stake (1995) stresses that qualitative case study research is highly personal research, and that the quality and usefulness of the research is not based on its generalizability or replicability but on its personal value to the researcher and/or reader. Kilbourn (2006) refers to a "self-conscious method" or a realization by the author of a qualitative study and represented in the outcome. To that end, it is apt to present here my personal life history in relation to this study. My personal history includes over 10 years as an educator with varied experiences and roles within the field of education. Most of these experiences have focused on the area of special education, in particular, within the area of high incidence or learning disabilities. My experiences have been related to remediating and/or preventing reading difficulties particularly for struggling readers. It should be noted that I began this study with a definite philosophical inclination toward evidence-based reading instruction for struggling readers and students at risk for reading difficulties. I also held and still hold a passion for ensuring that teachers of these students provide instruction that fits within my definition of evidence-based reading instruction. My definition for evidence-based reading instruction is informed by the National Reading Panel's (NRP)'s (2000) report of the necessary components for beginning reading instruction. In retrospect, this personal philosophy more than likely affected my experiences within Angelica's classroom, as I was an involved observer. Within the context of her classroom, I was not only collecting

data and analyzing these data; I also acted as a coach and a support provider within the classroom as Angelica implemented evidence-based reading instruction.

Throughout this study, I took a reflexive position as I examined the archived data, asked questions, became aware of my position in the study and aware of the influence that my position brought to both the data collection and this study's data analysis. I continually asked myself what I know and how I came to that knowledge (Patton, 2002; Stake, 1995). I have prepared myself for the job of research instrument with qualitative coursework and reading and taking part in qualitative data collection and analysis under the guidance of experienced qualitative researchers through the primary study.

SUMMARY OF THE METHOD

To answer the research questions what changes in a first grade, general education teacher's reading instructional practices occurred as a result of a year-long university-teacher collaborative relationship in implementing evidence-based reading instruction for struggling students and what were the facilitators and barriers for implementing evidence-based reading practices for struggling readers, this case study examined one first grade teacher's change process as she implemented evidence-based reading intervention. The following qualitative methods of data collection were utilized: direct observation, formal interviews, and review of university-teacher dialogue in the form of support team meeting notes, research team meeting notes, and field notes, as well as other relevant forms of documentation.

CHAPTER IV

Results

Research has shown that children's failure to learn to read can have devastating consequences with respect to self-esteem, social development, and opportunities for advanced education and meaningful employment (Armbruster, Lehr, & Osborn, 2001; Lyon, 2003; Torgesen, 2004). The development of reading skills serves as the major foundation for all school-based learning. Without the ability to read, opportunities for academic and occupational success are limitedIt is clear from research that reading failure affects children negatively early in their educational career (Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996; Oka & Paris, 1986; Torgesen, 1998). Approximately 40 percent of fourth grade students are not reading at a proficient level (National Center for Education Statistics, 2003). By the end of first grade, children having difficulty learning to read begin to feel less confident about their abilities and less positive than when they entered school (Lyon, 2003). Students who do not acquire the ability to read in the first and second grades are likely to struggle with reading throughout their lives (Vaughn, Linan-Thompson, Kouzekanani, Bryant, Dickson, & Blozis, 2003). As these students progress through elementary school, self-esteem, and the motivation to learn to read decline even further. In many low-income urban school districts, the number of fourth graders who cannot read at a basic level approaches 70 percent (Lyon, 2003). Of the 10 to 15 percent of children who will eventually drop out of school, more than 75 percent will

report difficulties learning to read (Lyon, 2003). The consequences of reading failure are dire.Converging scientific evidence (Lyon, 2003; Armbruster, Lehr, & Osborn, 2001; National Reading Panel (NRP), 2000) indicates that the majority of children who enter first grade at risk for reading failure can learn to read at average or above-average levels. However, only if students are identified early and provided with systematic, explicit, and intensive instruction in phonemic awareness, phonics, reading fluency, vocabulary, and reading comprehension strategies. Without systematic, focused, and intensive interventions, the majority of these children rarely "catch up" (Francis et al., 1996; Torgesen, 1998; Torgesen & Burgess, 1998). Failure to develop basic reading skills by age nine predicts a lifetime of illiteracy (Lyon, 2003; Swanson, 1999). Unless children entering first grade at risk for reading failure receive appropriate instruction, more than 75 percent will continue to have reading problems into adulthood (Lyon, 2003). Conversely, early identification coupled with comprehensive early reading interventions can reduce the percentage of children reading below the basic level in the fourth grade from 38 percent to 6 percent or less (Walker, Greenwood, Hart, & Carta, 1994). These studies have indicated that, with the proper early instruction, the national prevalence of reading failure can be reduced significantly. Based on the evidence gathered through research in the last few decades classroom reading instruction on phonemic awareness, decoding, fluency, vocabulary, and comprehension can ensure that all save a small percentage of children will learn to read (Foorman & Torgesen, 2001). Thus, by putting in place well-designed and evidence-based early identification, prevention, and intervention programs in our public schools, research indicates that could reduce the 20

million children today experiencing reading failure by approximately two-thirds. Such a reduction would allow us to provide services to children in genuine need of special education services with substantially greater focus and intensity. Despite the past decades' focus on reading research and educational reform (NCLB, 2002), we are only now beginning to collect evidence of how general education teachers go about preventing and remediating reading difficulties. In particular, few studies have presented data relating to this phenomenon occurring within university-teacher partnerships. Therefore, the purpose of this study was to investigate the extent to which evidence based reading instructional practices were implemented by one general education, first grade teacher. A qualitative single case study design using archived data and primary and secondary analysis was employed to study the change in reading instructional practices with struggling readers of this first grade teacher. The study utilized a naturalistic approach to inquiry using qualitative data collection procedures of archived data and qualitative content analysis. This case study uses three archived sources of evidence as a means to answer the research questions posed. The data sources consisted of document analysis of coaching and modeling sessions, formal and informal classroom observations, professional development sessions, research and support team meeting notes, and teacher interview data.

Table 4.1 displays the procedures that took place in the year long school-university collaborative partnership within which the study occurred and Table 4.2 represents the evidence of change that resulted. The findings are presented chronologically in terms of teacher change and in relation to the school-university

partnership context within which the study occurred. For example, the procedures refer to deliberate actions undertaken by the university researchers in order to effect what the university researchers considered positive reading instructional changes. The rationale for the direction of these instructional changes came from an extensive background research review provided by the research project director and discussions within the research team. The literature reviewed and discussed included literature on coaching (Gersten, Morvant, & Brengelman, 1995), school-university and university-teacher collaborative relationships (Ball & Cohen, 1999), and bringing research to practice (Gersten, & Brengelman, 1996). Each procedure outlined in Table 4.1 was designed to help Angelica implement the evidence-based reading instructional practices that the university researchers were introducing.

Table 4.1. Procedures

Ongoing PD Procedures and Activities and Collaboration	STMs Teacher sharing Student directed instructional ideas Classroom management assistance Fluency instruction (e.g., modeling, providing rationale at STMs, providing passages, providing assistance partnering students and providing scripts) Materials management (e.g., setting up student-directed instructional centers, setting up teacher-directed small group instructional materials and scripts, group assignment and student letter-sound correspondence assessment, progress monitoring and student data analysis meetings) ICM/C Informal observations with feedback IVC's Assessment data provided by research team and reviewed with Angelica. Ongoing modeling, organizational support, and training by researchers made it easy to later implement. Collaboration that occurred responsive to teachers' needs; highlighting Angelica's effective practices

In particular, I examined Angelica's reading instruction and her reading instructional practices when we began this project and how her practices changed throughout the project. The research questions that guided this study will help organize this chapter of results.

DESCRIPTION AND TEACHING ENVIRONMENT

In this chapter, I describe the changes of Angelica Muniz in her reading instruction as she engaged in a yearlong teacher- university collaborative. I begin with a description of Angelica followed by the chronological documentation of her change in reading instruction. As the Project Coordinator for the university research team, I also present findings in terms of what I learned from studying Angelica. The results are presented in terms of each research question for this study.

Angelica Muniz had seven years of experience teaching first grade before the beginning of Project ICARE. Her first language was Spanish and she was born in Mexico. Before beginning a career in teaching, Angelica had a career in business. She also held a Bachelor of Science in Elementary Education. Angelica's prior knowledge in reading instructional practices included training in guided reading (Fountas & Pinnell, 1996), balanced literacy (Pressley, 1998; Wharton-McDonald, Pressley, Rankin & Mistretta et al. (1997), and the First Grade Teacher Reading Academy (Texas Center for Reading and Language arts, 2002).

The first grade team leader (a bilingual Spanish instruction teacher) and Angelica were the only teachers of the six involved in the school-university collaborative who had

taught first grade for more than one year at the start of the academic year 2001-2002. Three of the bilingual Spanish reading instruction teachers were undergoing alternative certification to become certified bilingual elementary teachers. The other English language reading instruction teacher was an experienced teacher (5 + years experience); however, this was her first year teaching first grade.

Angelica's classroom and the school in which Angelica taught had a large population of at-risk students as determined by family income, language proficiency, and achievement factors. All of Angelica's students were receiving free or reduced lunch. The setting was an urban school district in the southwestern United States near a large research university. The school participated in a federally funded reading project in collaboration with the University. Angelica received considerable instructional support from the primary instructional leaders at her school – the principal and the reading coach.

Of the 593 students in kindergarten through fifth grade at the entire school, 90% were receiving free or reduced lunch. Sixty eight percent of the students who attend this school are Hispanic, 27% African American, and 5-6% European American. Less than one percent of the students were Asian/Pacific Islander or American Indian. Sixty-one percent were Limited English Proficient (LEP).

Within Angelica's classroom, the 15 total students received reading instruction primarily in a whole class method of delivery of instruction during a 90 minute language arts instructional block suggested that formal and informal observations conducted at the beginning of the year. The core reading program was the Scott Foresman (1999) basal

reading program for first grade and some whole group instruction that pulled from elements of the Spalding method or The Writing Road to Reading (Spalding & Spalding, 1990). The Scott Foresman basal reading program was a literature based reading program that was supplemented with decodable books and the Spalding method was developed based on the work of Samuel Orton (the Orton-Gillingham method; Orton, 1966) who Romalda Spalding studied under at Columbia University. The Spalding method as practiced by Angelica in her classroom consisted of students repeating and learning or memorizing all of the multiple sounds that a phoneme can make in the English language incorporated with multisensory techniques like writing the sounds in the air or tracing the letters on the carpet and hand symbols for each letter-sound correspondence. This instruction typically took 10-15 minutes at a time.

Angelica also implemented her training in Guided Reading (Fountas & Pinnell, 1996) using the leveled books provided by the school resources available and small groups for reading those books. This was a school mandate and a students' beginning reading level was determined by the students' results on the Developmental Reading Assessment (DRA). The DRA was meant to place students in a level that corresponded with a student's independent reading level or a 95% text difficulty. It appeared from the initial observation that there were difficulties that students encountered in Angelica's typical classroom instruction. This excerpt from the initial observation in the fall of 2001 evidenced these difficulties. The students who were struggling to read or could not read were demonstrating this with inattention to task and reliance on other students (during choral reading) and audio tape recording of text.

Teacher (T) asks, "What is today?" - no answer from students, children talking

T says: "I am going to have to send you two back to your seats".

T says: "We have been reading about Student Trucks (short /u/)".

T says: "What sound have we been working on"? (T redirects and says to student: turn around please quickly).

T goes to large chart; T reads and points, students echo; T reads first word – class finishes, not all children reading, and teacher does not see that.

T: "Please point to words said". Some kids echo.

T: "Just listen". Some kids off task - not pointing, looking around room, some look at book; Tape says words to know-gives word and tells what person does (book has the glossary at the end of story); some books are closed; most pointing to words and following; T finds Trucks

T: "OK get ready to read with tape" Kids echo words, some ahead of words, not together, most on task, 2 not (FOBS).

Ongoing Professional Development. Although the phonemic awareness intervention was first presented in August and this became a part of Angelica's instructional practice in August, she did not demonstrate PA instructional proficiency until the winter of 2001 as demonstrated by records of research and support team meeting notes. At the beginning of the school year, university researchers conducted a four-hour professional development session with all of the first grade teachers. The session consisted of a debriefing and review of the articles that were mailed over the summer, a teacher knowledge survey, and a discussion about the current structure of each teacher's language arts class. Then, the principal investigator of the primary study conducted

training on making adaptations to reading instruction using phonemic awareness instruction as an example and a videotape example of a teacher using this particular intervention. The videotape of a teacher providing this intervention and making the adaptations was again repeated in a subsequent support team meeting. The video was also made available for check out on Angelica's campus.

Support Team Meetings. Subsequent professional development consisted of weekly and then biweekly support team meetings, modeling, and coaching sessions conducted within the teacher's classroom. Feedback was provided oftentimes immediately during observations of interventions. The professional development encompassed an entire school year and included weekly and biweekly support team meetings with members of the research team, the teachers, and the school's reading specialist. During these meetings, the interventions were introduced and modeled for the teachers. Research team members followed these intervention introductions with modeling of the techniques in the classroom, co-teaching of the interventions, and observation with feedback. Professional development also included discussion of conceptual components underlying evidence based early reading instruction and methods of assessing and monitoring progress. Student progress graphs, which contained data collected by the researchers, were discussed with the teachers several times during the year. Teacher concerns were discussed at subsequent support team meetings, and modifications or adaptations of materials were proposed and tried in the classrooms.

I observed Angelica formally twice, at the beginning and toward the end of the

school year. Angelica completed a knowledge survey including demographic information at the beginning of the year-long university-teacher collaboration and participated in two formal interviews conducted at the beginning of the study and at the culmination of the study. The Fall 2001 interview (see Appendix C for interview questions) was comprised primarily of questions formulated to determine teacher knowledge of reading components and reading instructional practices, making the interview a helpful data source for this purpose.

Angelica Muniz

> **"When we are using a basal, a story I know is way out of reach for a lot of students, we do it as a whole, like when we're doing group reading. And what I usually do, I try to pair off some students together. They all have their own book, but still they'll pair off with somebody who reads that they can hear. (FTI, 8.01-ll. 21-23)."**

As I tell the story of Angelica Muniz, we will see that there were certain existing instructional routines she practiced at the onset of Project ICARE that may have influenced the success of the school-university collaboration. For example, as evidenced by the above quote from the fall of 2001, Angelica was already implementing some of the grouping practices encouraged by the researchers in Project ICARE. She used grouping of less-skilled readers with skilled readers to scaffold instruction for the struggling readers. Angelica interested me because of her enthusiasm and responsiveness to working with the university team. I also was interested in her because of the student results I observed in her classroom. Classroom observations as well as conversations with Angelica suggested to me that Angelica had high expectations for all of her students. For

example, one student was scheduled for a special education pull-out session during the language arts block. Angelica decided that the student could benefit from the intervention. During the intervention that she provided, that particular student made as much if not more progress as the students in the intervention group without school-identified disabilities. He also made more progress than the remaining students did who still received the special education pull out sessions. This student did still receive speech and language services but he now was receiving all of his language arts instruction from the general education teacher.

RESEARCH QUESTION 1: WHAT CHANGES IN A FIRST GRADE, GENERAL EDUCATION TEACHER'S READING INSTRUCTIONAL PRACTICES OCCURRED BECAUSE OF A YEAR LONG UNIVERSITY-TEACHER COLLABORATIVE RELATIONSHIP IN IMPLEMENTING EVIDENCE-BASED READING INSTRUCTION FOR STRUGGLING STUDENTS?

Reading Components

The following section addresses the first research question for this study and documents changes in Angelica's reading instruction and practices during the yearlong university-teacher professional development collaboration. Evidence of change is drawn from data collection sources. This section is organized first by reading component and then by effective reading instructional practices.

Phonemic Awareness. Angelica's comments during the fall interview provided insight into her instructional practices. Although Angelica had confused terminology at times, (i.e., phonetics for phonological awareness) she described practices that

demonstrated her knowledge of many effective instructional practices during the fall interview. She began the study with gaps in her knowledge of phonemic awareness and demonstrated inaccuracy in the use of terms such as phonetics for phonological awareness. However, she had established certain routines in her classroom that coincide with what is considered effective practice or effective delivery of instruction, though it is unclear whether she previously provided phonemic awareness instruction. Her discussions about phonemic awareness instruction all described phonics instruction. What Angelica referred to as phonological awareness instruction but was really phonics instruction proceeded along the scope and sequence of the systematic program (Spalding, 2003) that Angelica was using. During the first classroom observation (i.e., FOBS), no phonemic awareness instruction was observed as a part of her classroom instruction. There was no room for individualization, which Angelica valued in instruction, Spalding is also referred to as The Writing Road to Reading, and she described the practice in the fall interview:

> **"We just go by repetition, I'm sorry to say, but I try to make it fun. Say we're doing the /a/, or saying we're doing five sounds, and I tell them I want them to do it loud or I want them to do it low, and they whisper it in someone's ear, you know, stuff like that, and then point to it, and do you see any other sounds here, go point to it (FTI, 08.01-11, 103-109)".**

By the first intervention implementation check (IVC1), Angelica was spending at least five minutes of small group instructional time providing phonemic awareness instruction for each group. IVC1 documented a segmenting/blending and phoneme deletion activity. It involved phoneme manipulation using fingers as manipulatives. Angelica was using a variation on Say it, Move It from the First Grade Teacher Reading

Academies and the initial professional development session when the adaptations framework was presented. The adaptations framework showed a teacher working through the initial activity, Say it, Move It then making adaptations to that and finally, for students who still needed to have that instructional objective further adapted, a change in the instructional activity in the form of a new activity called Finger Phonemes. Her new teacher behaviors included explicit reading instruction using this small group grouping structure to provide explicit teacher-directed instruction, which was not a part of her initial instruction, maximizing group responses, monitoring student progress, and pacing.

Phonics and Word Study. Word Study and phonological awareness were mixed together in Angelica's description of her lessons. Angelica started in the project with apparent confusion between phonological awareness and phonics. She realized the power of instruction in phonetics as she described phonological awareness. It was critically important that students learn their "sounds", especially the vowels that had more than 2 sounds. Even students who appeared to know how to read were given instruction in phonetics because Angelica feared they had only memorized a few sight words. In the fall, Angelica stated, "I teach them sounds because I'm afraid that later down the line, how many sight words can they hold in their brain (FTI, 08.01-11, 92-97)".

Phonological awareness instruction or what Angelica referred to as phonological awareness instruction proceeded along the scope and sequence of the systematic program that Angelica was using. Word Study, on the other hand began at the individual student's level of need. Angelica used assessment to determine letter-sound correspondences that

the student did not know. Then, she taught those particular correspondences. Angelica's word study instruction included teacher modeling and practice. This practice extended into student writing.

As a follow-up to Angelica's fall interview and the PDW1, I worked with Angelica to initiate the phonemic awareness instructional practice (Say It, Move It) that was demonstrated in the video included in the initial training. During the ICM/C sessions, I would model the practice by teaching the intervention with Angelica's students then, on subsequent sessions, observe Angelica working with students and sometimes we would co-teach the lesson. Then, we began implementing the scripted Word study procedures developed by the principal investigator as a part of the 20 minutes of intervention provided in small group instruction. Appendix D provides an overview of the teacher-directed small group instructional activities.

The researcher-created Word Study procedures were an explicit and systematic, scripted set of phonics procedures consisting of lead/model, guided practice, and individual checks for understanding with progress monitoring. The group Angelica was working with in the small group instructional setting determined the letter-sound correspondences she taught. The groups were created with help from me as I had administered an extensive researcher created assessment that determined which letter-sound correspondences and high frequency words students still needed to be taught. Then, the groups were constructed so that the students were well matched. Students then would practice reading the sounds they were taught during the lesson in the decodable

books that were provided by Scott Foresman. Sometimes, Angelica would use additional materials that I brought to her because she found that the Scott Foresman decodable books were limited and she wanted some variety for students. As a result of the support that Angelica was receiving in the classroom, she had access to more resources than she did before, help with student data collection and analysis and a measure of accountability for her teaching in the form of me visiting her classroom a few times a week expecting to see the small group instruction and provide feedback on this instruction. Her phonics and word study instruction seemed more random and incidental before implementing the Project ICARE procedures:

> **"Because for me phonetics is just like the sound of the word, of the letters. And word study to me would be like a complete word. And the way I handle that, is that first I see how many sight words a student knows, you know like *mom* and *eye* and *it* whatever, if they know any sight words, and from there we go phonetically to be able to write the word (FTI, 08.11-01, 153-160)".**

Not only was Angelica struggling to find her way instructionally in regards to explicit instruction, consistently using the features of effective beginning reading instruction, and the meeting the needs of struggling readers, she seemed to rely on dictation and writing as a large part of her instruction and assessment:

> **"I have the students write a sentence, and they say, "I play". And they put p-l-a or "outside" they put o-t-s-d, something like that okay? And so then, I realize that they're missing those sounds and so then, I approach it phonetically. That's how I would approach that one. And then until they're ready, like for the E, the five rules of E, and stuff like that (FTI, 08.11-01, 166-173).**

Although Angelica seemed to value this type of instruction as evidenced by her

answers to some questions during the FTI, it was not evidenced in her instruction initially based on initial observations, both formal and informal. Therefore, the consistency and systematic application (e.g., providing intervention for 20 – 30 minutes 3-4 times a week rather than incidentally) of these reading instructional practices represented a change in her teaching throughout the project. By December of 2001 (Winter), Angelica had been presented the word study procedures in a support team meeting, then had coaching and modeling sessions with me and the principal investigator of the larger study. The initial ICM/C session was a follow up to the initial presentation during the support team meeting. We modeled the procedures of letter-sound instruction, which consisted of initial instruction of the letter and sound with modeling, guided practice, independent practice, and error correction. This was modeled for Angelica with her actual students. Then, the word study procedures moved to making words, giving students a chance for further practice with the letter-sound correspondence previously taught. Finally, students practiced reading the letter-sound correspondences in connected text.

After the procedures were modeled for Angelica, she provided intervention using the word study procedures to a small group and was observed and provided with immediate feedback from me or another university researcher. By January, Angelica was showing proficiency in the small group, teacher-directed instruction she was providing to struggling readers and I administered IVC2 (word study) intervention. She provided students with all the pieces of the explicit intervention and even connected it to her phonemic awareness instruction.

Oral Reading Fluency. Angelica did not address fluency directly by name in her fall interview; yet, she demonstrated knowledge by stating the importance of repeated reading and the use of practice (i.e., repetition). She described wanting students to feel "comfortable" with the text that they are reading. During the fall interview, Angelica also mentioned that she had students select "familiar" text for guided reading lessons indicating fluency intervention (repeated reading). Angelica's use of the phrases "familiar text" and students feeling "comfortable" with the books they are reading is terminology used with Reading Recovery instruction. Reading Recovery is an intervention featuring one-on-one tutoring for first grade students, leveled books, and each lesson consisting of reading familiar stories, reading a story that was read for the first time the day before, working with letters and/or words using magnetic letters, writing a story, assembling a cut-up story, and reading a new book. The teacher teaches and demonstrates problem-solving strategies and provides just enough support to help the child develop effective strategies. Reading Recovery encourages comprehension and problem-solving with print, so that decoding is purposeful and students read fluently (Clay, 1993). Project ICARE held a different approach to using "familiar" text and helping students to develop phonics skills and become fluent readers. This approach involved a more explicit, systematic approach to reading instruction and familiar text was either text that had been used as a part of the repeated reading/PR fluency intervention and/or decodable text consisting of letter-sound correspondences that students had previously been taught. Although Angelica had not had any formal professional development in Reading Recovery strategies, she did respect and appreciate the strategies that the bilingual Reading

Recovery teacher on her campus often shared with her in support team meetings and otherwise. When initially observed in October of 2001, it was noted that she used Guided Reading lessons. However, there were no modeling or error correction procedures as students read aloud.

In January of 2002, fluency intervention was introduced during a support team meeting as a part of the Project ICARE intervention program. In the beginning, the partner reading (PR) intervention presented Angelica with difficulties. She and the other first grade teachers found it difficult based on conversations during the support team meetings and informal discussions so notes from the research team meetings began focusing on how to facilitate the fluency intervention (PR) as evidenced in this excerpt from the RTMN in February 2002.

> **"There is a need for "probes" (scripts) to support them (the teachers) in doing PR (partner reading). Anyone who is on campus should "pop in" to observe/help…Angelica has stopped differentiating for the students…Rereading (and counting) is problematic for the kids (RTMN, 02.20-02)".**

The RTMN also discussed how the calculation of words correct per minute (wcpm) can be made easier for the children: "Researcher observed the children in the low group "making up" rather than reading the print. (RTMN, 02.20-02)". One of the points made clear from the teachers in Project ICARE was that differentiating passages for each group of reading partners proved too difficult during this first implementation of the intervention and that for Angelica, management of the passages was easier when every pair read the same passage for multiple days. In addition, when the research team

provided Angelica with a Partner Reading script, she was able to implement the intervention more successfully. An example of Angelica's change in reading instructional practices was when she began to incorporate more error correction into her facilitation of oral reading fluency building. In the fall interview, her primary method of fluency instruction was to ask students to read "familiar" books during Guided Reading sessions. Her changes in instructional practices and her increased monitoring of student progress are apparent in the results of her April 2002 Partner Reading (PR) IVC (IVC3) represented in Table 4.2.

Table 4.2. IVC Form: Partner Reading

Teacher Name _Muniz Date: 04-01-02 Activity: Partner Reading; Materials: folders with reading passages # of Pairs_4_ Time 9:33 to 9:51											
GET SET READ			PRACTICE READ								BEST
Cold Read done before practice	T review unfam. proper nouns & #s	S Mats easily access	Ss have all mats needed	T preteach words unfam. for P1	T review Fix the Word	T review prac read	Ss follow along with other reader	Ss use approp. Error Corr proced.	T review best read	Ss follow along w/ other reader	Ss use Error Corr proced	Ss graph
X	X	X	X	X	X	X	X	X	X	X	X	X

Teacher Behavior	Quality	Comments
Pacing	1-2	Slow at first due to group changes because of absences
Minimal Teacher Talk	1-2	Extensive discussion during graphing, slow transition
Maximizing Student Engagement	1	Other students need something to do while waiting or can try counting themselves, slow process counting words, graphing
Monitoring student prog.	2	Floats room, assisting students with error correction and ensuring that students are following along

# of times that teacher has done or is planning to do partner reading this week __4__
0 = absent 1=barely or limited 2=strongly present NA = not applicable
Note: 5 students absent today; grouping different than usual

Reading Instructional Practices

In the fall, Angelica utilized advance organization, grouping structures, methods of scaffolding student instruction, modeling, and individualized pacing of instruction. She demonstrated through her discussions during the fall interview features of effective instruction such as, advance organization, grouping, modeling, and pacing. She also had a sequenced reading program that she uses and describes in the fall interview.

Advance Organization. Before having students begin reading a new book, Angelica described in her FTI how she provided a number of activities that help activate the student's existing knowledge. In the literature, advance organization refers to the teacher utilizing activities like previewing materials to be read, providing information (e.g., providing vocabulary definitions) before introducing a concept or beginning a discussion, in the interest of bridging the gap or activating prior knowledge to add to the new information to be learned (Anderson & Pearson, 1984; Darch & Gersten, 1986). Angelica calls this getting them "ready to know what they're going to be reading". She may give them a physical object that they can "personalize" or she may link the text to some "experience" that they have had. Additionally, Angelica wants the reading to be "comfortable" for the students. To help them feel comfortable, she goes over "anything that might be intimidating" such as "unfamiliar words". Finally, the student "repeats that book many times" before they put it in their "personal box" of books that they can read independently. Although Angelica does not use the term advance organizer or activate prior knowledge, she seemed to use this component of instruction.

Grouping. When Angelica thought a story in the basal reader would be "out of reach for many students", she utilized a whole group instructional format. However, within this whole group format, Angelica described during the FTI how she formed informal pairings of students to insure that a weaker readers was sitting beside a stronger reader who would then model reading of the basal passage, so that "they can hear" the passage being read.

> **"I do both, yeah. When we are using a basal, a story I just know is way out of reach for a lot of students, we do it as a whole, like when we're doing group reading. And that one, what I usually do, I try to pair off some students together. They all have their own book, but still they'll pair off with somebody who reads that they can hear. When it comes to group reading, then they are grouped according to ability (FTI, 08.11-01, 41-50)".**

Small group instruction was another grouping structure that Angelica utilized. Students may be grouped by ability (reading levels) in her classroom or in mixed groups. Angelica liked to have stronger and weaker readers in groups together, "one above and one below" the main level of the group. This was meant to enable the less skilled student to move up to a higher level, Angelica explained in her fall interview. Instruction in small groups was individualized to student need (i.e., number of sounds introduced per lesson). Angelica also explained that for word study she likes to begin where the student demonstrates need, and then teaches students things they do not know to add to things they already know.

> **"And I usually like to keep them all in the same level or, actually, I have one below and one above that group. If I'm working with say C's, I like to have one B, or 2 C's, or something like that, you know, so that I can bring that group closer to C up and so that the D is with D, and they can just get a stronger D before I move them into the E section (FTI, 08.11-01, 50-59)".**

Scaffolding Instruction. Angelica demonstrated knowledge that there were different levels of readers in her classroom. She made adaptations for struggling readers like pairing less skilled readers with a stronger reader. Angelica also used what she described as a systematic phonics program (Spalding, 2003) and she expressed a desire to base instruction on individual needs, analyzing tasks, and sequencing tasks by moving from known to unknown, easy to more difficult, and repetition or practice until tasks are mastered or child is ready to learn a new task. Angelica began instruction where she perceives that a student's knowledge breaks down and then simplifies tasks by teaching in small increments based on the individual student's ability to move forward. During the fall interview, she described teaching procedures for introducing new sounds that are explicit and systematic – they involved teacher modeling, guided practice, multiple opportunities to respond, and independent practice.

> **"^I say the sound, they say it with me, I write it on the board, they write it on paper, and then I show it to them. We go through all the writing, saying, you know, and then when we practice we just practice you know individually when it is introduced for the first time. They'll have it, they'll see it, say it, and write it, and we do that like three times (FTI, 8-01-11, 123-129)".**

Modeling. Angelica modeled for her students in the whole group instruction when she reads aloud from the basal for the students to follow chorally. Additionally, she modeled in small group instruction for word study using her prescriptive, sequenced, phonics reading program [Spalding]. Further, she used students as models during whole group instruction when she pairs a stronger and weaker reader. The group was doing choral reading, but the stronger reader provided a model for the less skilled reader to follow in addition to hearing Angelica model reading the text.

Pacing. Angelica paced instruction in small group instruction of word study according to the scope and sequence provided by the prescribed, sequential, and systematic program (Spalding, 2003). However, Angelica indicated that some students could not proceed as fast as the program specified. Therefore, she made adaptations for content covered based on the need of individual students.

Practice and Review. Another means of providing effective instruction for her students involved multiple opportunities for practice. In repeated reading of books to mastery as well as in word study instruction, Angelica mentioned the value of repetition. For example, Angelica mentioned that she liked the Spalding materials that utilized daily review of previously introduced sounds and the fact that the program pulled sounds that had been learned into new lessons. Table 4.3 represents a summary of these changing practices.

Table 4.3 Evidence of Change

Initial knowledge, values, and practice: (based on FTI and FOBS)	Fall 2001	Winter 2001-2002	Spring 2002
Knowledge: fluency – read faster, with ease, more fun; knowledge that there are different levels of readers students should be able to generalize letter sound correspondences; students need repeated opportunities for reading to build fluency		Change: Knowledge Struggling readers don't learn from picture clues	Change: Knowledge: Wants to be trained next year to do more of the assessments herself
Practice: pairing weaker readers with stronger readers; repetitive strategies; systematic instruction; sequencing instruction; repeated reading important; flexible grouping; activating prior knowledge; individualized instruction; begins instruction where the student has need; using advance organizers	Change: Instructional Practices PA activity becomes part of daily intervention Revises schedule to accommodate the intervention Reanalyzes running records data with school liaison and comes to the conclusion that this year's students are beginning much lower and without this type of instruction – would not have performed as well	Change: Instructional Practice Assessment data and recognition that something needed to be done re: struggling students Data analysis meetings – student progress was impressive Begins using magnetic board – likes it better, easier to handle Using language master to provide extra practice with sight words from the basal	Change: Instructional Practices Begins adding phonograms/sound practice as repeated reading Capacity building: teacher sharing at support team meetings and informally ICM/C made it easy to later implement; more time needed to be devoted to PA rather than previous practices of guided reading, Spalding, shared reading More time needed to be

Table 4.3, cont.

	Beginning to implement strategies that maximize student response; word study with amount of time provided and tighter sequence	reading program. Demonstrates PA proficiency Materials management	devoted to phonemic awareness and phonics rather than guided reading, shared reading (A2, 05-02-10). Demonstrates WS instructional proficiency Demonstrates fluency building (PR) proficiency
Values: the value of systematic and explicit instruction for struggling reader; "balanced literacy" – describes a balanced literacy program	Change: Values Idea presented by teacher about restructuring language arts classes Students should have done much better on running records		Change: Values Project renewed pride in teaching Increased efficacy

SUMMARY OF CHANGES IN READING INSTRUCTIONAL PRACTICES

When Angelica changed her instructional structure to accommodate the new instructional procedures provided by Project ICARE, it enabled her to work with her lower students and provide practice that is more meaningful for the majority of her groups, who were struggling with learning to read. Previously, Angelica had been using the DRA as her primarily relied upon assessment and did not seem to understand or have the time for, the analysis of her student data. Specific support team meetings and individual meetings with university researchers designated for the purposes of analyzing student data and assistance using that data to drive instruction were a facilitator for change. These facilitators helped Angelica realize the urgency and intensity needed when approaching instruction for her struggling students as evidenced by discussions with me while visiting her classroom, her reading coach, and our research team meetings and field notes that reflected what Angelica was worried about. Specific coaching sessions and support team meetings led to Angelica providing more meaningful practice than her previous practice of worksheets at independent seats or free writing in journals. An interesting anecdote occurred when Angelica stopped the special education teacher from working with one of her students and being the sole provider of this student's Language arts instruction. Angelica decided that she wanted to work with this student herself because she felt that her teaching procedures would now be of more benefit to this student. While he remained a student who received special education services (i.e., an individualized education plan, speech and language services), he received his language arts instruction solely from Angelica, the general education teacher.

Classroom management and the provision of small group instruction was an anticipated barrier for Angelica. Because Angelica was asking for assistance with her implementation during teacher-directed instruction and I could observe that organization of materials was an area where Angelica needed support, I focused on providing support to Angelica in these areas to facilitate her implementation. When Angelica expressed concerns about classroom management when working with a small group, I helped her brainstorm ideas for literacy centers and set them up for her. We also worked out a system where students would rotate through the centers automatically allowing her to work with small groups. During support team meetings, literacy center ideas were shared by teachers and university researchers. Because Angelica was the first teacher of the six teachers involved in Project ICARE to have her literacy centers up and running, she became the literacy centers expert in the group. This collegiality and sharing was a change agent and a driving force that facilitated Angelica's changing practices. The next section of results discusses the facilitators and barriers that Angelica experienced and that I observed during the year long professional development university-teacher collaborative.

WHAT WERE THE FACILITATORS AND BARRIERS FOR IMPLEMENTING EVIDENCE-BASED READING PRACTICES FOR STRUGGLING READERS?

FACILITATORS

The facilitators to Angelica's change in reading instructional practices were documented during the course of this research. These facilitators are described in detail in the next section and organized into components of Angelica's reading instructional

practices. In short, the facilitators were:

1. Ongoing professional development
2. Specific support team meetings and individual meetings with university researchers focusing on student data analysis and assistance using that data to drive instruction
3. Classroom management
4. Organization of materials
5. Instructional scripts for partner reading and teacher-directed phonemic awareness and phonics small group instruction
6. Angelica's receptiveness to evidence-based reading instructional practices and willingness to be flexible with her instructional schedule
7. Value Angelica placed on systematic and explicit instruction for struggling readers
8. Confidence in and high regard for the university researchers and other reading experts
9. Support from school liaison (reading coach)
10. University-teacher collaborative
11. Collegiality

12. Communication

13. Sharing with other first grade teachers

14. Collaboration with her first grade teacher partner

15. Scheduling structure already in place

16. Student response to intervention based on school district data (this was important to Angelica)

17. Small group instruction occurring prior to Project ICARE

Many of these facilitators were put in place as a response to an observed barrier or a barrier that Angelica shared with me. As you will see in the descriptions below, some of the initial barriers became a facilitator and others I noted as the inevitable outcome of a teacher implementing a change in instructional practices. I note these barriers and some suggestions for future research in chapter 5. The barriers were:

BARRIERS

1. Classroom Management (learning centers, computer, timer)

2. Differentiating passages for partner reading

3. Organization of materials

4. Word study – this was overcome by the principal investigator modeling organization of materials and her first grade teacher partner sharing the

idea of the use of a magnetic board and letters

5. Fluency (PR) – overcome by first grade teacher partner sharing passages and passage organization

6. Time (both instructional and time for Angelica to receive professional development; she would have benefited from continued collaboration with the university based on her own words)

Using Data to Inform Instruction. Teachers who have successfully implemented new practices typically study student assessment data. These teachers then use these data to inform instruction while working with colleagues to refine teaching practices (Fullan, 1999; Taylor, Pearson, Peterson, & Rodriguez, 2005). One of the major changes began when Angelica began receiving and reviewing the progress monitoring data with university researchers. This was a facilitator for Angelica. As Angelica says in her spring interview when asked what will cause her to sustain practices:

> **"Again, I can't stress the progress of the students, the way they learned to read the words, the way I felt this would be even more beneficial for them during the upper grades they just didn't learn a word, they learned the word, the structure of it (STI, 05.01-02, 3-66)"**

When we asked how her practices would change for the next year she says:

> **"The assessments that were used for the struggling students I think should be given to typical readers also. Because the data provides so much information and it locates the student weaknesses, and even if the student is reading at level, they may be weak in areas that could cause problems for a typical reader in the upper grades that right now we aren't seeing. There was one student in our classroom that was tested accidentally and when we analyzed his data because it was there, we realized that he was missing the simple**

> **VCV words. And we used the techniques for the struggling readers on him and then he picked it up with ease. He did it 3 times faster than a struggling student, but he was lacking that. [J1]So I think I would definitely keep the assessment parts and making sure, and putting across the board to all students. I don't think the typical students would not benefit from this, they would definitely benefit from this (05-02-10, 195-205)".**

Initially, in the fall, Angelica has some concerns about slower progressing students. Angelica's student data from her running records indicated that students were not doing as well as they typically would have on the running records at that time of year and that perhaps the time spent on the Project ICARE interventions was to blame. During discussions with the school liaison (reading coach), Angelica, and myself; it was determined that the students that Angelica was concerned about were actually less skilled readers at the beginning of the year than she typically had in her classroom. In addition, it was determined that probably these students would have been harmed if Angelica were not providing these interventions.

Modeling and Coaching. In a December support team, a midyear feedback form was completed by Angelica and she indicated that the support team meetings were a limited facilitator. Angelica described support team meetings being not as helpful to her as other activities that she engaged in as a part of the ongoing professional development:

> **"Some support team meetings were very beneficial, but I learned more when we had one to one conferences, modeling, guiding, and lessons directed to *my* class (12-02-05)".**

Collaboration in the classroom, researchers, support from the school liaison and personnel were very helpful as reported by Angelica. In particular, Angelica thought that bringing administration, and other school materials, sharing teaching ideas during support

team meetings, getting test data back from the researchers, her progress monitoring of students, and the level 2 teaching activities or interventions were very helpful. Looking forward to the second semester, Angelica states that things she would like Project ICARE to focus on are "activities for students who were L2 students, but just reached the required reading level for this time of year (STMN, 12-02-05)".

Based on information from the January support team meeting notes, there are concerns expressed that struggling readers (refer to as level 2 students or L2s) are not progressing as well based on the teacher's running records. By January, the students were progressing much better on Angelica's running records. The recommendation from the research team is that these students may be performing really well but do not drop them from the intervention yet. We decided then to intensify the word study instruction for those students who are not doing well. The school liaison (reading coach) acted as a facilitator for Angelica's successful participation in the project. Because of her role as a representative of the school's administrative staff, the reading coach had the authority to lead and sanction necessary instructional changes. She was instrumental with alleviating Angelica's concerns about the instructional practices and Angelica seemed very desirous of modeling by her and the university researchers.

Initially, Angelica had some concerns about slower progressing students. However, when Angelica saw the results of her student assessments and realized how much progress needed to be made with her students based on assessment data provided to her by university researchers, she changed her instructional schedule by dropping Guided Reading for all but one reading group that she considered on track in reading ability and

substituted that Guided Reading time with the small group instructional procedures provided by Project ICARE and modeled and supported in her classroom by myself and other researchers involved with the larger project.

Duration and Ongoing Professional Development. Part of the challenge facing researchers is how to help teachers translate research on evidence-based reading instruction into practice through ongoing professional development (Taylor et al., 2003). Project ICARE focused on the "what" (curriculum, instructional activities) as well as the "how" of instruction (delivery of instruction) when conducting the ongoing professional development. However, Angelica did not demonstrate mastery of the phonemic awareness intervention until the winter of 2001-2002 although coaching and modeling of the PA intervention is provided 2-3 times a week in her classroom by university research personnel. Implementation issues were evident and primarily had to do with pacing of the phonemic awareness intervention as demonstrated by conversations recorded in the research team and support team meeting notes although grouping for instruction was successful based on evidence from the same data sources (i.e., research team and support team meeting notes). Therefore, what would seem to be a facilitator because of the duration of the time I spent in Angelica's classroom and working with her through PROJECT ICARE (one academic year) could actually be considered a barrier for Angelica. She just needed a longer time to process the new instructional strategies, in particular, those having to do with the critical features of beginning reading instruction.

Collaboration. The collaborative approach to implementation of evidence-based reading instructional practices for struggling readers provided Angelica with a process for

communication about her instruction as well as her struggling students. This atmosphere of collegiality is a powerful facilitator of change for teachers (Fullan, 2002; Little & McLaughlin, 1993). Several procedures that were a part of the support provided by the university-teacher collaborative facilitated Angelica's implementation of the evidence-based reading practices. The support team meetings were opportunities to share what was happening in Angelica's classroom. The project coordinator and other university researchers who were often in Angelica's classroom would ask Angelica to share activities or practices that Angelica was implementing well and would spend time brainstorming ideas to help individual students. Angelica also facilitated implementation by her willingness to be flexible. Angelica stated during support team meetings that she would like more modeling and coaching from the university research team. In particular, she would like to become better at pacing her instruction and would like opportunities to observe her peers (i.e., other first grade teachers) as they implement evidence-based reading instruction. In the spring, the university-teacher partnership began to focus on building capacity. For example, teacher sharing was encouraged and the reading coach/school liaison was encouraged to begin to take on some of the modeling and observation with feedback duties. During classroom visits, as evidenced though field notes and research team meeting notes, providing students with multiple practice opportunities and Angelica's pacing were going well – these were both areas of concern initially for Angelica and researchers. However, a support team meeting that featured a presentation by a consultant regarding providing students with multiple opportunities for response and reducing teacher talk as well as pacing seemed to spearhead effective instruction apparent in her instructional practices in the spring. During Angelica's STI,

she shared her thoughts about the collaboration that occurred.

> **"I cannot express to you how much I enjoyed every step. and how beneficial each one was for me. The researchers were extremely professional, well learned in all areas of reading, they were completely understanding to every teacher situation and conditions of the classrooms, they were open to anything we went through, they were very encouraging, they were consistent; never deviated from the course of helping a student learn to read, and they never thought our ideas were useless, and now I know after going through the program I came up with ideas that were way left field. I never felt that there was a wrong idea. Everything, the meetings, everything, I don't know if we could narrow anything down without losing benefits at one point or another (05-02-*10, 262-268)".***

Organization of Instructional Materials. Classroom management was an initial barrier to Angelica's successful implementation of reading interventions. My help with the organization of her instructional materials was a considerable help to her management of the language arts classroom. An additional facilitator to Angelica's implementation was the provision of passages for her Partner Reading fluency building activity. The organization of instructional materials was a barrier for Angelica that became a facilitator because of the university support. University researchers provided her with multiple passages and assisted with the organization of these materials. Her Word Study instruction also needed help with organization that was provided by university researchers during coaching and modeling sessions. I organized her word study materials so that she had quick access to the letters for making and building words during the small group instruction. In addition, she liked using the scripts for this instruction as evidenced by support team meeting notes and informal observation. It was easier for Angelica to have less to think about "on the fly" and everything ready to go when the students arrived at her center for teacher-directed instruction. Another facilitator of her implementation

was the ability for her and another teacher to share passages for Partner Reading. Perhaps without my presence in her classroom, like some of the other PROJECT ICARE teachers, Angelica might have felt overwhelmed. When asked during the spring interview what we should change about the project, Angelica had this response:

> **"I wouldn't change anything, although some of the teachers felt overwhelmed with the amount of wonderful materials that you provided for us that maybe for those teachers some type of material organization can be implemented. Just to help them be able to utilize these materials quicker and easier (STI, 05.02-10, 270-273)".**

SUMMARY OF FACILITATORS AND BARRIERS TO INSTRUCTIONAL CHANGE

In summary, it seems that even at the onset of Project ICARE, Angelica used many of the features of effective beginning reading instruction. Angelica seemed predisposed to agree with the practices and procedures. This receptiveness resulted in facilitating change for Angelica. If she found the practice useful to the students in her class and efficient to use, it was implemented in her classroom. She mentioned time as a barrier to her use of systematic instruction in phonological awareness. However, this barrier was balanced by the value that she placed on the use of a systematic and explicit instructional routine for struggling students. Angelica's views related to struggling readers and systematic and explicit instruction became apparent through conversations with the research team meetings and field notes as I worked with the research team to debrief about the coaching and support sessions, as well as the informal conversations that I had with Angelica.

Although the terminology had Angelica confounded at times, she demonstrated her knowledge of many effective instructional practices. She used the term phonetics

when describing PA but had a grasp of the connection of PA to sounds, but used letters (Spalding letter flash cards) as part of an activity that she calls a PA activity rather than keeping PA activities oral. It should be noted here that the Spalding method integrates letters with phonemic awareness activities simultaneously, perhaps contributing to her apparent confusion. She says in her fall interview that it is "knowledge of the letter" and "sound correlation" indicating the close connection in her mind. She also expressed the importance of children understanding the sounds of words as well as having a sight vocabulary of words. She knew that it was necessary for her students to be able to generalize their knowledge of letter-sound correspondences into decoding and reading in connected text rather than just memorizing the words.

"How many sight words can they hold in their brain? (FTI, 08.01-11, 25)."

EMERGING THEMES

This study examined the reading instructional practices of a teacher as she took part in a university –teacher collaborative relationship. Specifically, as the project coordinator for the larger study, I was able to spend a considerable amount of time (i.e. 3 times a week most weeks from August to May) and work with her as she implemented evidence-based reading practices. I used a qualitative case study methodology and several overarching themes emerged. To verify the conclusions I drew from the analysis, I returned to the data to review and confirm the themes. In the following chapter, I provide an explanation for each theme.

Based on the literature reviewed on teacher change studies, the results reported from this case study were not surprising nor were they unexpected. The themes that

emerged were explained in terms of reading instructional practices, facilitators, and barriers to change. They are:

- **Changing instructional practices require time;**
- **Reading Instructional practice change happens quicker and easier than changes in teacher knowledge;**
- **Teacher change is easier when a predisposition to new practices is present; and**
- **Researchers need to attend to the "Reality Principle" (Gersten et al., 1991) because teachers are more apt to implement practices when they are easy, concrete, and manageable as well as providing a benefit to students.**

SUMMARY OF RESULTS

A qualitative single case study design using archived data was employed to study the change in reading instructional practices with struggling readers of this first grade teacher. The data sources consisted of document analysis of research and support team meeting notes (RTMN and STMN), classroom observations (i.e., observations of typical reading practices and observations of fidelity of intervention implementation), and teacher interview data. In particular, I examined Angelica throughout the course of this study, her beliefs about reading instruction and her reading instructional practices when we began this project and how her practices and beliefs changed throughout the project.

As a member of the university research team, I also presented findings in terms of what I learned from studying Angelica.

CHAPTER V

Discussion

The purpose of this study was to provide an in depth examination and analysis of the issues of implementation of early reading instructional practices by a first grade teacher who learned these reading interventions in a year long professional development. The research was conducted in an effort to add to the emergent literature on university-teacher collaborative relationships and teacher change. According to Fullan and Stiegelbauer (1991), educational change remains a challenge because change is not a single entity. Change is multidimensional and, as such, can vary accordingly both within the same person as well as within groups.

There are three critical dimensions in implementing any innovation: a) the possible use of new or revised materials (e.g., a new curriculum), b) the possible use of new teaching approaches (e.g., new activities), and c) the possible alteration of beliefs (e.g., pedagogical assumptions underlying the innovation). The difficulty lies in the fact that all three aspects of change are deemed necessary for the implementation of innovative teaching approaches. Fullan (2001) identified a set of factors that are interactive and work together, over time, to contribute to the process of change. These factors include need, clarity, complexity, and practicality. Much of the current teacher change research on implementation comes from the classroom innovation research of the 1970s and 1980s, which, searched for a teacher proof or technically "better" method of

teaching that teachers needed to be trained in and implement with fidelity. Out of this earlier research, researchers found that many innovations are high on cost, low on fit, and involve "false clarity" (i.e., they appear easy to implement, but actually involve more effort or change than people anticipate, Fullan, 1991, p. 70), or are superficially interpreted). Practical changes are those that address salient needs, fit well into real teacher situations, are focused, and include concrete how-to-do-it possibilities (Mortimore et al., 1988). The more factors (facilitators) that support a specific change, the more likely that a change will occur. Cuban (1988) suggests that in order for second order changes that fundamentally change school organization (i.e., school reform) to occur, teachers need influences from outside authorities (e.g., government or administrative influence). We (Angelica and researchers) also addressed this with ongoing collaboration.

Fullan and Stiegelbauer (1991) suggested that when teachers do not clearly understand the nature and goals of the innovation, they might only superficially adopt innovations. Thus, one of the facilitators of teacher change lies within ensuring that teachers understand the purpose of educational reform activities and how to implement these instructional changes. We addressed understanding by providing a rationale for each component of the reading intervention we asked Angelica to provide. Typically, these rationales involved helping Angelica assess and analyze her students' reading achievement data. For example, Angelica had surface knowledge of the components of beginning reading instruction that should be in place for students to learn how to read. She had attended the First Grade Teacher Reading Academies, which presented teachers

with this knowledge. We then followed up the prior knowledge Angelica held about first grade reading instruction and the prevention of reading difficulties with the initial professional development (PD/W1) and then with discussions during the support team meetings. Building upon that knowledge about the important components of beginning reading instruction, her own students' data were shared and analyzed with her to help rationalize the necessity of instruction and intervention in each of these components of beginning reading. These discussions and knowledge building proved to be another facilitator for Angelica. There is an important point here that came to my attention. That is that even when working with a teacher who hade extensive experience at first grade. The start point was teaching strategies that are typically specific to reading but to make this work there were other more general strategies that had to be addressed (classroom set up, grouping). This holds great implications for future PD and that that PD efforts need to ensure to address thee along with reading instruction, even if we feel that good teachers would "know" how to do these things. Recent research provides more information about teachers, change, and knowledge. Fullan (2002) suggests that knowledge must be created by and shared by teachers as well as imparted to teachers. He represents information as only becoming knowledge as a part of a social process and that "learning in context has the greatest potential payoff because it is more specific, situational, and social (it develops shared and collective knowledge and commitments) (p. 19)". An additional facilitator to Angelica's change was that Angelica often had opportunities to share information with other first grade teachers during the support team meetings. Real change in the form of new practice involves change in behaviors. Consequently, to identify whether change has been achieved through participation in ongoing professional

development via a university-school partnership, this study investigated changes in teacher practices with regard to beginning reading instruction for struggling readers. In addition, the facilitators and barriers to changing practices were examined.

RESEARCH QUESTIONS

1. What changes in a first grade, general education teacher's reading instructional practices occurred because of a year long university-teacher collaborative relationship in implementing evidence-based reading instruction for struggling students?

2. What were the facilitators and barriers for implementing evidence-based reading practices for struggling readers?

Both of these research questions were addressed by working with and observing Angelica within her context of the first grade classroom. Angelica had been teaching the first grade for seven years before I began working with her through Project ICARE. It was my first year as the project coordinator for Project ICARE and my first year in the doctoral program. Angelica and I bonded because of our shared concern and expectations for her students' success and the extended amount of time I spent in her language arts classroom. Through analysis of the data collected during this year, several themes emerged.

THEMES

Themes emerging from this study on teacher change and the facilitators and barriers to change are discussed. Four themes emerged from this study. The first theme

emerged from findings related to changing instructional practices. The second, third, and fourth themes emerged from findings related to facilitators and barriers to change.

Theme 1: Researchers need to attend to the "Reality Principle" (Gersten, Woodward, & Morvant, 1992). Teachers are more apt to implement practices when they are easy, concrete, and manageable, as well as providing a benefit to students.

A large part of the university-teacher collaborative was the provision and interpretation of student data. We began the year long professional development with discussions about student data and met individually with Angelica to help her determine the meaning of her student data. Angelica had initial difficulties with the explicit instruction she was asked to provide in small groups. However, the fluency building intervention was easy for her; that may be because it fit within her existing structure of teacher as instructional facilitator. This is not surprising because most teachers believe they are doing a good job (Lortie, 1975/2002, Shulman, 1987). Asking teachers to change practices is almost like telling teachers that they are doing poorly (Lieberman, 1987; Little, 1990; 1993; 2003; Wenger, 1999). It became increasingly clear that when the reading instructional practices fit within Angelica's existing structures then

Angelica's success implementing evidence-based reading instructional practices was greater. These existing structures were influenced by the state's standards, previously learned teaching strategies, ideas and concepts previously provided in professional development, the school's and the district's first grade reading curriculum, and Angelica's ideas about teaching, beginning reading instruction, and instruction for struggling readers. In addition, Angelica enjoyed the coaching and modeling that took

place. Discussions, field, and meeting notes revealed that when Angelica began seeing student gains, she was encouraged and more likely to stick with the ideas and activities.

Theme 2: Changing instructional practices require time.

"Despite calls in virtually every major reform proposal of the last decade for vastly improved professional development services for teachers, most of those services have been narrow, episodic, and often tied to external categorical programs" (Resnick & Glennan, 2002, p. 5). Meanwhile, it is rare to find classrooms or schools where there is some instructional support and administrators spend even less time in analyzing instruction with teachers (Fink & Resnick, 2001). In this case study, however, an intensive amount of time was spent with Angelica analyzing instruction and discussing her students. This was a major facilitator for Angelica's implementation of evidence-based reading instruction for struggling readers. In fact, she often asked for additional opportunities for coaching where she was observed and received feedback and she received these opportunities. This level of support is often reflected in the literature on teacher change. Stallings, Robbins, Presbrey and Scott (1986) indicated the importance of providing teachers with formative evaluation to facilitate positive classroom changes and create teacher support for the research involved. Researchers expect observed changes in teacher practices to be sustained because of the teachers' and schools' confidence in the program and satisfaction with student results.

The phonemic awareness instruction was probably the best example of the theme of changing instructional practices requiring time. I was surprised that even after initial training, modeling, and coaching, Angelica still took several months to master phonemic

awareness (PA) instruction. However, this prolonged change process is reflected in the literature.

Theme 3: Reading instructional practice change happens quicker and easier than changes in teacher knowledge.

During the past three decades, research on educational reform has shifted from proposing narrow, programmatic innovations to more comprehensive solutions, emphasizing contexts, and participants of educational change (Fullan & Stiegelbauer, 1991; Sarason, 1971). Lortie (1975/2002) noted that educational change would occur only when a shift occurred to a focus on more collegial relationships and more sharing of teacher knowledge and expertise. This study did not focus on depth of knowledge; rather, the focus was more on changing practices. Perhaps Angelica would have been better able to master PA instruction if more depth had been a focus of the project. Commentators on educational reform began arguing for an upgrade of the quality of public education in the early 1970s (Lortie, 1975) and more recently, commentators (Peterson, McCarthey, & Elmore, 1996; Prawat, 1991) argue strongly for the need to shift this research focus from teacher behaviors to teachers' practical knowledge and cognition. However, we also have found recently (Fullan, 2002) that change is likely to occur in an atmosphere of collegial sharing and that then and only then can information be imparted into knowledge. In Little and McLaughlin's (1993) research on teacher work groups found that professional communities that are highly collegial environments facilitate high levels of commitment to teaching and enthusiasm for implementing innovative instructional practices.

Theme 4:Teacher change is easier when a predisposition to new practices are present.

Fuchs, Fuchs, Mathes and Simmons (1997) found teachers were more likely to adopt practices that fit within their current practices or did not require adopting completely new practices and Desimone (2000) in an extensive review of comprehensive school reform in urban schools found that teachers were more likely to adopt practices that did not require making fundamental changes in the delivery of instruction. Angelica was already open to reform, coaching, and mentoring efforts because of her relationship with the reading coach. One of the reasons I chose to study Angelica's changing practices was because I wanted to know what it was that caused her to wholeheartedly embrace the university-teacher collaborative. During informal discussions with Angelica, she often shared with me her regard for the "experts".

Utility and Limitations of the Research

Anticipated Outcomes. I anticipated several outcomes of my research that may be important to the discipline of special education. This study provided an important and timely description of key concepts in the prevention of reading difficulties through proactive multi level interventions within a general education, first grade teacher's classroom. General educators and university researchers wishing to form collaborative relationships with classroom teachers can draw on the suggestions presented here to inform their efforts in implementing preventive literacy programs that are consistent with a paradigm meant to prevent reading difficulties.

Although many have studied the process of teacher change, the process that takes

place within a school wide professional development model in the wake of No Child Left Behind (NCLB) (2002) has not been studied extensively, particularly in the context of a general education teacher providing intervention to prevent reading difficulties. Fullan and Stiegelbauer, 1991 emphasized, "It is at the individual level that change does or does not occur" (p. 49) and they conceptualized change as a "process, not an event" (p. 49). I illustrated the process of teacher change through this case study of a first grade teacher involved in a university-teacher collaborative. Because of this idea of individual teachers being the driving forces behind educational reform, there are implications from this study and lessons to be learned for professional development. Through this study I wanted to explore the critical role of teacher voice and to demonstrate that, at least for this case, supporting a constructive environment and professional guidance focused on instruction and student outcomes is critical to teacher change This includes lessons that can be learned for teacher education, both preservice and inservice.

IMPLICATIONS FOR FUTURE PROFESSIONAL DEVELOPMENT AND EDUCATIONAL REFORM EFFORTS

Studies conducted over the past decade indicate that professional development is major focus of systemic reform initiatives and as Angelica voiced, professional development experiences can have a substantial, positive influence on teachers' classroom practice. In addition, according to teacher change literature: teachers place a high priority on their prior experiences and previous professional development activities. Given this important finding and these findings did have an effect on my experiences with Angelica. Angelica had had previous opportunities to work with the campus reading

coach and participate in reading professional development. Her positive experiences with both of these situations may have made her more amenable to my presence in her classroom 3 or 4 times a week and make her request my presence and assistance. Angelica felt comfortable being a part of these familiar situations. I also believe that Angelica's confidence in her teaching ability (according to the school liaison/reading coach, Angelica always was successful with her students and her student achievement always improved every year) allowed her to feel comfortable asking for help and acting in a collaborative role as well. In addition, Angelica was very familiar with assessing her students and using that information to group and provide instruction for her students. She administered the DRA several times a year and used that to assign students to groups and reading levels (i.e., texts). She then would post student results so that they could see their growth throughout the year. This was essentially very close to what Project ICARE was doing. The difference was that our focus was more on the struggling readers and the prevention of reading difficulties so we used different assessments to reliably parse out these issues. Future professional development efforts need to acknowledge, incorporate, and address the prior ideas, beliefs, and experiences of the teachers.

If we know that teachers have to carry out the demands of high standards in the classroom (Cuban 1990) and that PD that provides for high standards, content focus, and in-depth learning, is ongoing (one year or more) and that the PD needed for systemic reform takes people (individual teachers) to make change (Fullan 1993) and is not the same kind that has been supported in the past (i.e., one-time, expert driven workshops or institutes) – we have to ask ourselves – is this the kind of inservice and preservice

education we are providing as teacher educators? If not, how fair is it to ask teachers to implement the policies and research that are apart of systemic reforms? We know that many hours and resources must be devoted to teacher change and learning. We have to come up with ideas to do the necessary tasks more effectively perhaps by creating leadership cadres this might consist of providing structures for teams of teachers who would work together to build conceptual knowledge needed to implement and sustain changes. I could easily see this happening within the induction year for a beginning teacher. We might also go to the educators involved in professional development and teacher training because they might have a useful framework for conceptualizing relative strengths and weaknesses of a given teacher at a given time, which could provide a focused, coherent framework for professional development. In essence, this would involve differentiating and individualizing professional development and teacher education.

Researchers are already providing intensive support for implementation of evidence-based reading interventions for struggling readers. However, researchers, educators, and policy makers alike need a deeper understanding of the factors that inhibit or facilitate changes in instruction and the supports needed to implement change (Datnow, 1998) and a better understanding of how the process looks when teachers are more likely to sustain innovations. The facilitators and barriers that became clear from my time spent with Angelica concur with much of the literature reviewed. I was especially interested in the facilitators that facilitated the effectiveness of the implementation of evidence-based reading instructional practices. For example, some of

the practices were more difficult for Angelica to add to her repertoire of practices. Knowing why is important to teacher educators. In addition, there are some practices that, based on my findings with Angelica, it will be important to have direct coaching occur in these instances. For example, the teacher-directed direct instruction in small groups received more support and modeling/coaching at Angelica's request. For the partner reading, a teacher facilitated activity rather than a teacher-directed, more explicit intervention, teachers were eager to begin implementation. If I learned anything at all from this experience, it is that teachers need to be provided with intensive and ongoing feedback on the day-to-day implementation of these strategies that they are being asked to implement and also need daily discussions and a focus on the impact their practices have on their students (Gersten, Morvant, & Brengelman, 1995). This is something that Gerseten and colleagues have known from their research for over ten years and that we addressed in Angelica's classroom by paying explicit attention to student performance data helped this. Additionally, in order to be useful, teacher educators must translate research into specific, manageable, and comprehensible teaching techniques that work with existing curriculum (Gersten et al., 1995). It was less overwhelming for Angelica to implement new practices when I was able to show her how these practices were tied into her state and grade level standards and district t and school curriculum.

IMPLICATIONS FOR FUTURE RESEARCH

As researchers and practitioners continue to work together to implement educational innovations, some of the findings from this case study can support the convergence of research on teacher change. Although this one teacher cannot be

generalized to an entire population of teachers, her process looked remarkably similar to what is represented in the body of teacher change literature. This study was a step in the exploration of teacher change in reading instructional practices and the facilitators and barriers to that changing practice. Further research is needed to extend the findings of the current study. Recommendations for future research that emerged from this study include the following:

1. Pedagogical and content knowledge data collected for this study were sparse. A more complete representation of the degree to which procedural or practical knowledge is linked to a deeper, conceptual understanding may be captured with additional studies related to the content of the reading components and instructional practices introduced to Angelica. One of the things that I learned from Angelica is that a focus on more depth and conceptual knowledge could be helpful in future professional development efforts. For example, the reading coach was so essential to Angelica's successful implementation her role could have been expanded. Baker and Smith (1999) came to similar conclusions. They suggest setting up support structures for teams of teachers who would work together to build conceptual knowledge needed to implement and sustain changes that goes beyond their procedural understanding. According to teacher change literature, that discusses the importance teachers place on their experiences and

that teacher development activities need to acknowledge, incorporate, and address the prior ideas, beliefs, and experiences of the teachers. Deepening teacher knowledge about reading instruction can facilitate teachers' changing practices (McCutchen, Abbott, Green, Beretvas, Cox, Potter et al., 2002). However, this was not the case with Angelica and this aspect needs further exploration.

2. Motivation to change was not addressed in this study. Research is needed that concentrates more on learning what compelling reasons motivate teachers to make a change in practice.

3. This study needs to be extended in both its depth and its range. Additional information about teacher knowledge in knowledge, beliefs, and practices could be provided to further study the nature of teacher change. Broad range, survey research, as well as additional extensive case studies could provide valuable information. The context within which this teacher change study occurred did occur within an environment where some of the teachers had some beliefs that did not mesh with researchers beliefs about instructional approaches as we found out during the year Angelica was studied. Findings focused on teacher's beliefs and perceptions about assessment and accountability have been

> reported in the literature and many researchers have found that teachers feel a significant amount of tension between what was required of them and their own beliefs and values and this has also been echoed in the literature on teachers and curriculum reform efforts (Craig, 2006).

The sustainability of long term efforts like this has been studied before. Through a 3-year follow-up, Klingner and colleagues (1999) were able to determine a list of implementation facilitators and barriers and found several factors that influenced the sustainability of a practice (i.e., a facilitator). They found that a support network, administrative backing, student benefits, students' acceptance of an instructional practice, being able to modify a practice, and having materials already prepared or available were extensive facilitators. Having a support network and strong leadership are findings supported by additional research on professional development and reform efforts (Wixsom & Yochum, 2004). I found many of these factors as facilitators and barriers to Angelica's implementation of evidence-based practices in beginning reading instruction. However, I do not know if Angelica sustained any of these practices and if she did, to what extent and level of fidelity or if she did not, why not? An in-depth ethnography of the sustainability of evidence-based reading practices would be fascinating to me and lead to many recommendations for facilitating teacher change and removing barriers to teachers' implementation of evidence-based practices.

Limitations of the Research

Criticisms of case study methodology have included the perceived lack of rigor and the lack of generalizability to populations. However, Rosenblatt (1988) argues in support of research that does not attempt to generalize to other groups but focuses on studying a phenomenon that occurs within a specific context. Yin (1993, 1994) answers criticisms of case study methodology by explaining that case study research is not always conducted using set procedures but often occurs as an extension of quasi-experimental research. The lack of generalizability to populations is not of concern in this study or in case study research. Rather, the generalization to theories and to instances within a particular context takes precedence in case study research.

When interpreting the results of this study, several limitations arose. The sample size consists of one teacher so analyses might seem especially meager. However, this study does not claim to be able to generalize results to an entire population of teachers. Rather, this study examined the process of a first grade teacher's change in practices within a supportive environment. Follow up in later years for this particular teacher would provide important validation information and important information about the sustained use of practices.

SUMMARY OF THE DISCUSSION

The research was conducted in an effort to add to the literature on university-teacher collaborative relationships and teacher change as well as the current teacher change research. Most of the studies in this area come from the innovation research of the

1970s and 1980s as well as the effective schools research in the 1990s that presupposed a method of instruction that teachers were trained in and expected to implement with fidelity. Because I knew that to support a specific change, the more support given the more likely the initiatives were to be sustained, I was interested in what facilitated the change process (i.e., what supports were needed). I also wanted to know what the barriers wee to Angelica being able to provide evidence-based reading instruction to her first grade struggling readers. This was important because of Angelica's role as a general education teacher and the first level of intervention for these students who were at such a critical point in their academic lives. It seemed that the support that facilitated Angelica's successful experiences with Project ICARE were assistance with the analysis of her students' reading achievement data, modeling and observations with feedback provided as well as assistance organizing materials and obtaining appropriate materials and activities. The teacher change literature also indicated that for successful collaboration to take place, teachers needed to be able to share experiences in a give and take as well as having information imparted to them.

Real change in the form of new practice involves change in behaviors. Consequently, to identify whether change has been achieved through participation in ongoing professional development via a university-school partnership, this study investigated changes in teacher practices with regard to beginning reading instruction for struggling readers. In addition, the facilitators and barriers to changing practices were examined.

Appendices

Appendix A Support Team Meetings

Date	Topic
9/20/01	• Student assessment schedule • Phonemic awareness instruction • Fitting intervention schedule into daily routines
10/4/01	• Teachers bring First Grade Teacher Reading Academies (1TRA) notebooks to review instructional activities • Levels of instruction • Adaptations • Progress monitoring forms provided • Word Study (WS) teaching procedures modeled
11/8/01	• Concern with neglecting level 1 (i.e., grade level readers) students • Assessment results discussed for individual students
11/14/01	• Restructuring language arts instructional schedule to incorporate word study and phonemic awareness (PA) intervention • Provided materials to use in centers: flip cards and sentence strips • Slowly progressing students • Angelica surprised that she has some students who still do not know letter names and sounds • Progress monitoring forms • Request for word study scripts
11/28/01	Teacher sharing of instructional practice ideas
12/5/01	Request for assistance setting up literacy centers

1/18/02	• Focus on understanding the "why" of components of beginning reading
	  • Show data
	  • Connect to 1TRA
	• Focus on intensity through provision of more opportunities to respond
	• Demonstration by project consultant on multiple opportunities to respond and instructional pacing (e.g., reducing teacher talk, choral response)

2/6/02	• Literacy centers • Angelica shares her center rotation schedule and her ideas for literacy centers
2/20/02	• Partner Reading (PR) • Focus of support is on classroom management issues • Centers – ideas to teachers
3/6/02	• Reading coach wants to learn the PR procedures to be able to use them in classrooms • Collaboration discussed – setting up coaching schedule

	• Sustainability/Scale up: G1 teachers suggest doing a PA training with K teachers

3/27/02	• Discussion centered around questions that remained to be answered
	  • Do teachers like PR?
	  • How do teachers know if it is effective?
	• Question about making graphing more efficient – suggestion that both partner 1 (more skilled reader) (P1) and partner 2 (less skilled reader) (P2) graph together at the conclusion of "best read".
	• Continuing discussion of getting children to "chunk" reading rather than emphasizing "word by word" reading
	• Reminder: entire procedure includes reviewing instructions during partner reading
	• Adaptations
	• Teachers talked to the principal about switching grades for Reading/Language Arts. Ex: high first grade students go to 2nd grade for lang. arts instruction and low 2nd grade students come to 1st grade for instruction.

4/18/02	• Videotape teachers implementing strategies for the website and for teacher education purposes • Teaching high frequency words
4/29/02	• Summer school ideas • Story grammar

Appendix B Appendix C Fall and spring interview questions

Fall Interview Questions:

1. Describe your preparation for teaching reading.
2. What does it mean to have a balanced reading program? In addition, what elements of reading would be included?
3. Describe your grouping practices in teaching reading.
4. Can you tell me the three most important things you know about phonological awareness as it applies to students in first grade and phonemic awareness? Can you describe your understanding of phonological awareness and how much you think you know about it or do not know?
5. What would be an example of a phonological awareness activity that you may use with students or that you know of for students in grade one?
6. Please describe your understanding of word study or word analysis at the first grade level.
7. What would be an example of a word study or word analysis activity that you know of for first graders?
8. Can you describe your understanding of fluency at the first grade level?
9. Can you think of a fluency activity for students in 1st grade?
10. Can you describe your understanding of reading comprehension?
11. What is an example of a reading comprehension activity?
12. What is progress monitoring?
13. How do you address the needs of students who struggle to read?
14. What do you consider effective features of reading instruction? Can you provide two examples of what you consider effective features of how to teach a new skill or concept?

Spring Interview Questions:

1. As a result of this project, tell me the changes you made in your reading instruction, teaching approaches, materials, time, student activities, approaches to effective instruction, etc. that you changed for teaching struggling readers. (Probe for materials, levels of instruction, time, activities, progress monitoring, what students were doing, i.e. guided/shared reading, what parts were dropped or added?) Why?

2. Which of these changes will you make a permanent part of your instruction for struggling readers? Why?

3. What contributed the most to the changes that you made? (probe for meetings with the researchers, student achievement, assessment data, ease of fitting into the

instructional time, ease of implementing, agreed most with how you were already teaching, collaboration.)

4. What contributes to your decisions to sustain the changes that you plan to continue?

5. What did you learn as a result of this project that you will **not** continue using/implementing for struggling readers?

6. How will you apply any of what you have learned about teaching struggling readers to teaching typical readers?

7. What components of the university/teacher partnership did you particularly like? (Probe for liaison: Debbie/Erica, collaboration, support team meetings, materials from UT, data, and ideas for activities, professional development, and modeling).

8. What components of the university/teacher partnership should be changed? (Probe for liaison: Debbie/Erica, collaboration, support team meetings, materials from UT, data, and ideas for activities, professional development, and modeling).

9. Overall, how satisfied were you with the university/teacher partnership?

10. Whom did you hold off on referring for special education services and now have decided not to refer? Why?

11. How close are the students that you held off referring to typically achieving children?

12. What can we do to make the program better?

13. How can we work next year to promote vertical planning and sharing?

Appendix C Field Notes/Observational Tool Template

Possible Themes in the Field Notes

Directions: Find the categories that best fit the field notes. The same activity will be recorded in several categories. If you see themes that you want to emphasize or that are not included here, highlight each theme in a color and summarize the theme on separate paper.

Complete this section last.
Total time in all reading instruction/activities_____
Total time in all writing instruction/activities_____
Total time in other language arts instruction/activities_____
Total transition time_____

Attention to Phonemic Awareness

Activity 1_____
(e.g., segment, blend, and delete sounds)

Name materials used_____

Whole group	Small Group Level 1	Small Group Level 2
Minutes: With or without concretes With or without letters Description	Minutes: With or without concretes With or without letters Description	Minutes: With or without concretes With or without letters Description

Attention to Phonics Instruction

Activity 1_____
(e. g. teaches letter sound correspondences; teach word patterns or families)

Name materials used_____

Whole group	Small Group Level 1	Small Group Level 2
Minutes: In isolation Word reading Workbook	Minutes: In isolation Word reading Workbook	Minutes: In isolation Word reading Workbook

Attention to Reading Print

Activity 1_____

(e.g., morning poem, isolated words, passages from basal or chapter book)

Name materials used_____(circle decodable, narrative, expository)

Whole group	Small Group Level 1	Small Group Level 2
Minutes: Description	Minutes: Description	Minutes: Description

Activity 2_____

(e.g., morning poem, isolated words, passages from basal or chapter book)

Name materials used_____(circle decodable, narrative, expository)

Whole group	Small Group Level 1	Small Group Level 2
Minutes: Description	Minutes: Description	Minutes: Description

Activity 3_____

(e.g., morning poem, isolated words, passages from basal or chapter book)

Name materials used: (circle decodable, narrative, expository)

Whole group	Small Group Level 1	Small Group Level 2

Minutes: Description	Minutes: Description	Minutes: Description

Attention to Student Generated Writing

Activity 1_____

(e.g., journals, writing logs, stories)

Name materials used_____

Whole group	Small Group Level 1	Small Group Level 2
Minutes: Description	Minutes: Description	Minutes: Description

Activity 2_____
(e.g., journals, writing logs, stories)

Name materials used_____

Whole group	Small Group Level 1	Small Group Level 2
Minutes: Description	Minutes: Description	Minutes: Description

Attention to copying words the teacher wrote

Activity 1_____
(e.g., spelling words, something from blackboard, etc.)

Name materials used_____

Whole group	Small Group Level 1	Small Group Level 2
Minutes: Description	Minutes: Description	Minutes: Description

Attention to spelling

Activity 1_____
(e.g., oral spelling)

Name materials used_____

Whole group	Small Group Level 1	Small Group Level 2
Minutes: Description	Minutes: Description	Minutes: Description

Attention to other language arts activities

Activity 1_____
(e.g., mechanics)

Name materials used_____

Whole group	Small Group Level 1	Small Group Level 2
Minutes: Description	Minutes: Description	Minutes: Description

Activity 2_____
(e.g., mechanics)

Name materials used_____

Whole group	Small Group Level 1	Small Group Level 2
Minutes: Description	Minutes: Description	Minutes: Description

Types of Reading Activities

	Whole Group	Level 1	Small Group Level 2
Pre reading picture walk	Minutes Teacher Paraprofessional (Para)	Minutes Teacher Para	Minutes Teacher Para
Preview difficult to read words	Minutes Teacher Para	Minutes Teacher Para	Minutes Teacher Para
Preview difficult vocabulary words	Minutes Teacher Para	Minutes Teacher Para	Minutes Teacher Para
Adult read first; students as a group echo or mimic	Minutes Teacher Para	Minutes Teacher Para	Minutes Teacher Para
Students read independently and adult listens to individual students (Guided Reading)	Minutes Teacher Para	Minutes Teacher Para	Minutes Teacher Para
Students choral read And adult listens	Minutes	Minutes	Minutes

	Teacher Para	Teacher Para	Teacher Para
Student read in pairs/correct each other	Minutes Notes	Minutes Notes	Minutes Notes
Student read independently either aloud or silently	Minutes Notes	Minutes Notes	Minutes Notes
Other	Minutes Notes	Minutes Notes	Minutes Notes
Comprehension activity	Minutes Oral worksheet	Minutes Oral worksheet	Minutes Oral worksheet

Instructional Approaches

(Record minutes spent in each approach)

	Whole Group	Level 1 only	Level 2 only	Individuals
Time spent in teacher explicit or direct instruction				
Time spent in teacher led instruction or activities not explicit or direct				
Time spent in discovery or constructed learning, more student directed than teacher directed				
Time spent in individual work with teacher				

monitoring or guiding work, correcting errors				
Time spent in independent work, little or no teacher monitoring				
Other (describe)				

Features of Effective Instruction

(Rate as strongly present, present but needs improved, once in a lesson, absent, not applicable)

	Whole Group	Level 1 only	Level 2 only	Individuals
Teacher review prior lessons or skills				
Teacher explicit or direct instruction				
Teacher model new skill				
Minimal teacher talk				
Maximize student participation				
Error corrections				
Guides practice by monitoring and correcting				
Other				

Students' on Task Behavior

(Rate as almost completely on task, one or two students off task occasionally, only one student on task, others[2] mostly off task, all more off task than on task).=

[2] This classroom observational tool was created for Project ICARE, OSEP by Dr. Shirley V. Dickson, Educational Consultant

PARTNER READING TO IMPROVE ORAL READING FLUENCY

T[3]EACHER PROCEDURES

Description

- This is a 4-day reading fluency building activity that enhances the reading abilities of all students.
- This is a repeated reading with feedback activity to increase students' oral reading fluency.
- The Partner Reading components include: set-up, repeated reading practice, best reading, student progress monitoring (graphing), error correction procedures.

Students will take turns with a practice read for 2 minutes followed by a best read for 1 minute.

- Students will work in pairs. There will be a **stronger reader: Reader 1** and a **weaker reader: Reader 2.**
- Students will read a passage that is between the independent (95-100% accuracy) and instructional level (90-94% accuracy) of the weaker reader (Reader 2). It is recommended that Level 2 readers read decodable passages based on the letter/sound correspondences that they have mastered up to the day of practice

[3] These fluency materials were created in response to first grade teachers' request as a part of Project ICARE, OSEP by Dr. Diane Bryant, The University of Texas at Austin

reading. This will give them the extra reading practice they need.

- Students will read the same passage for **2 consecutive days**. Change passages after 2 days.
- It will take a week to teach students the reading and error correction procedures. After students learn what to do, the teacher can start the activity with very few words or directions. (See the teacher script for an example).

Setting up Partner Reading

1. IDENTIFYING STUDENT PAIRS OR PARTNERS

- Rank students in order from best oral reader to poorest oral reader. Divide this list in half. List 1 will be readers ranked from highest to about a middle ability. List 2 will be readers ranked from about the middle to the poorest ability. List 2 will probably contain most if not all of your Level 2 students.
- Pair readers so that the highest reader on list 1 is paired with the highest reader on list 2, etc. This guarantees a distinct break in reading ability AND keeps the reading levels closer rather than far apart. Keep the pairs for 6 weeks. After 6 weeks repeat steps 1 and 2 trying to give students a different partner from the first time.

2. IDENTIFYING READING MATERIALS

- Determine appropriate reading materials for the students from List 2 (the lower half of readers). This is individualized so that different readers on List 2 will have different passages, depending upon where they are in their reading progress.
- Reading materials should be between the independent and instructional level for each student on List 2. In other words, the reading passages are fairly easy for the List 2/Level 2 readers to read. This helps students develop a habit of fluent reading.
- The Level 2 readers should be reading decodable text that gives them practice applying the letter/sound correspondences that they have mastered to date.
- Students from List 1 (the better readers) will read the same materials as the students with whom they are matched from List 2 (the weaker readers). Research

supports this method. The higher readers will benefit from the activity even though they are reading easier materials.

3. STORING READING MATERIALS

- Establish a system for storing the reading passages for easy access. Students will read the same passage two days in a row. This means that you will change reading passages two times a week.
- You may want to store 2 or 3 weeks of reading passages for each student in order of use so that you can easily access the books.
- A second idea is to rotate passages. After you have used a passage for instructional purposes or in small group reading, you may want to place the passage into the student's folder so that the student will then read the passage to practice reading for fluency. Remember you will do this for only half of your class, as the stronger readers are reading the passages appropriate for the weaker readers.
- Establish a system for easily placing the appropriate reading passages into students' folders.

4. SETTING UP STUDENT FOLDERS

- Compile a folder for each student. Each folder should contain (1) a reading passage that is appropriate for the weaker reader (List 2/Level 2), (2) a page that tells students what to say when a word is missed, and (3) a graph to record daily improvement in oral reading.

5. SETTING UP YOUR ORAL READING PARTNER SCHEDULE

- Schedule a consistent time for 15 minutes each day for 4 days of the week when the class can do Partner Reading uninterrupted AND you are available to circulate, monitor, and help students as needed.

6. ESTABLISHING STUDENT MANAGEMENT

- Teach students how to:
  i) Move quickly and quietly to partner reading;

ii) Read in pairs;
iii) Correct errors for "practice reading;"
iv) Correct errors for "best reading;"
v) Graph "best reading;"
vi) Cooperate with each other
vii) Accept corrections.

Students will require several days of instruction in the procedures for partner reading. For a week or so, the teacher will need to observe and correct students who do not follow procedures. Praise students who correctly follow procedures.

Teaching Students to Participate in Partner Reading

General framework for what teacher says:

Day 1

Practice GET SET STEPS

We are starting a new activity called Partner Reading. The purpose of Partner Reading is to help you become more accurate, smoother readers. You will practice reading to a partner. You will read the same story several times. Reading something over and over helps you to become a better reader.

You will listen to each other read. First one person will read, then the second person will read the same passage. You will read in the order that I tell you. The first reader is called Reader 1. The second reader is called Reader 2.

When the reader misses a word or says the word the wrong way or doesn't know the word at all, the Helper will tell the Reader the correct word.

We will practice together a few days until you know what to do.

First look at the poster on the wall. This poster is called our Partners poster. It names the partners. The first name is Reader 1; the second name is Reader 2.

Now look at your folder. The folder has in it a story that you and your partner will read, directions for how to correct missed words, and a graph to show how you are becoming a better and better reader!

Now look at this next poster on the wall. This poster is our Fix the Word Poster. If we miss a word, our partner helps us figure out the word.

Practice GO STEPS

"Practice Read" for 2 minutes

Now we will work on "Practice Reading". Watch while I show you what to do. (Call on two good readers to come to the front of the room.) (Name) will be Reader 1. (Name) will be Reader 2 and the Helper (I will tell you what the Helper does this week). I am the teacher. When I say start, Reader 1 you start reading aloud. Read until I tell you to stop. If you finish the story, go back to the beginning and start again. Reader 2 you follow along.

Start. (Teacher starts stop watch or timer. Reader 1 reads aloud for 2 minutes.)

(After 2 minutes) Stop.

Now, Reader 2 will read and Reader 1 will be the Helper and follow along. Reader 2 will start at the beginning of the story. If you finish the story before I say stop, go back to the beginning and read the story again.

Start. (Teacher starts stopwatch or timer. Reader 2 reads aloud for 2 minutes.)

(After 2 minutes.) Stop.

Now everyone will practice. Take the reading passage out of your folder.

Reader 1 (raise your hand) When I say "start" Reader 1 read out loud to your partner, Reader 2. Remember if you finish the passage before I say stop then start over again. Reader 2 you follow along.

Start (Set timer for 2 minutes.) (Rotate around room to be sure everyone understands what to do.)

(After 2 minutes.) Stop.

Now Reader 2 will read the same passage aloud. Start from the beginning of the story. Remember if you finish the passage before I say stop then start over again. Reader 1 will follow along.

Start. (Set timer for 2 minutes.) Rotate around the room helping anyone who has trouble.

(After 2 minutes.) Stop

Are there any questions?

Answer questions. Praise students.

Day 2

Practice Error Correction for "Practice Reading" -- Fix A Word Poster

Remember that we are practicing partner reading to improve our reading.

Get your folders. Find the name of your partner on the Partner poster. Reader 1 move to sit next to Reader 2 partner.

We are going to practice reading to our partner. Remember Reader 1 reads first, reader 2 follows. Start when I say start and stop when I say stop. If you finish the story, go back to the beginning of the story and start over.

Get out your passage. Get ready. Start. (Set timer for 2 minutes)

(After 2 minutes) Stop.

Today we are gong to practice fixing words that are missed.

Look at the poster that says Fix the Word. Look at the part that says Missed Words (point). A missed word is a word that is read wrong. The word might be *home* and your partner says *house*. That is a missed word. Your partner might skip the word. Your partner might wait a long time before saying the word.

Now look at the part that says **"Practice Read: Fix the Word"** This tells the helper exactly what to say. You have to follow the words. (You might want to put a marker of some sort next to Practice Read: Fix the Word on the poster so students know that is where you are at.)

(Put a transparency of an easy or decodable reading passage on the overhead projector.) (Name) come here and be Reader 1. I will be the Helper. Class, watch what I do. (Name) I want you to read and say a wrong word on purpose.

(When Reader 1 makes a mistake, teacher points to the missed word.) Stop (put hand up in stop motion). That word is (xxx). Say the word (Reader 1 says the word.) Start at the beginning of the sentence. (Reader 1 rereads the sentence.)

Now watch when (Name) skips a word. Reader 1, I want you to read and this time skip a word.

(Reader 1 reads and skips a word.) (Teacher points to the missed word.) Stop. That word is (xxx). Say the word. (Reader 1 says the word.) Start from the beginning of the sentence. (Reader 1 rereads the sentence.)

Now watch what I do when Reader 1 pauses a long time before saying the word. (Name) read and then pause (you may have to model "pausing") for a word or try to sound out the word slowly. (Reader 1 pauses at a word.) Stop. That word is (xxxx). Say the word. Start at the beginning of the sentence.

Now you will practice. Let's start with Reader 1. Reader 1 read a sentence and miss a word on purpose. Helper read your script to correct the missed word.

Okay, now Reader 1 read the next sentence and skip a word on purpose. Helper read your script to correct the missed word.

Okay, now Reader 1 read the next sentence and stop for a bit on a word on purpose. Helper read your script to correct the missed word.

Okay, now we will do "Practice Read". Reader 1 start reading from the beginning when I say Start. Helper you follow along and read your script to correct any missed words.

Get ready. Start. (Set timer for 2 minutes.) (Rotate around the room helping students who are having trouble.)

(After 2 minutes). Stop.

Let's practice that again. Now Reader 1 you are the Helper and Reader 2 you will read and miss words. Reader 2 read a sentence and miss a word on purpose. Helper read your script to correct the missed word.

Okay, now Reader 2 read the next sentence and skip a word on purpose. Helper read your script to correct the missed word.

Okay, now Reader 2 read the next sentence and stop for a bit on a word on

purpose. Helper read your script to correct the missed word.

Okay, now we will do "Practice Read". Reader 2 start reading from the beginning when I say Start. Helper follow along and read your script to correct any missed words.

Get ready. Start. (Set timer for 2 minutes.) (Rotate around the room helping students who are having trouble.)

(After 2 minutes). Stop.

Explain to the class that they are to be polite to each other. Tell the correct word nicely. The reader should not feel badly about the corrections. Be polite and cooperate. This is practice to help everyone be a better reader. Repeat next day if needed.

Day 3 or later

"Best Read" for 1 minute

1. Remember that yesterday we worked on "Practice Reading?" Today we will work on "Best Reading". "Best Reading" means you do your very best reading and we will count up the words you read and make a graph later this week. (Model what "Best Reading" sounds like.) Every day after the "Practice reading", you will do "Best Reading" with your partner. You will read for 1 minute instead of 2 minutes.

2. Watch while I show you what to do. (Call on two good readers to come to the

front of the room.) (Name) will be Reader 1. (Name) will be Reader 2 and the Helper (I will tell you what the Helper does this week). I am the teacher. When I say start, Reader 1 you start reading aloud doing your very best reading. Read until I tell you to stop. If you finish the story, go back to the beginning and start again. Reader 2 you follow along.

3. Start. (Teacher starts stopwatch or timer. Reader 1 reads aloud for 1 minute.)

4. (After 1 minute) Stop.

5. Now, Reader 2 will read and Reader 1 will be the Helper and follow along. Reader 2 will start at the beginning of the story. If you finish the story before I say stop, go back to the beginning and read the story again.

6. Start. (Teacher starts stopwatch or timer. Reader 2 reads aloud for 1 minute.)

7. (After 1 minute.) Stop.

8. Now everyone will practice. Sit with your partner. Take the reading passage out of your folder.

9. Reader 1 (raise your hand) When I say "start" Reader 1 read out loud to your partner, Reader 2 (raise your hand). Remember if you finish the passage before I say stop then start over again. Reader 2 you follow along.

10. Start (Set timer for 1 minute1.) (Rotate around room to be sure everyone understands what to do.)

11. (After 1 minute.) Stop.

12. Now Reader 2 will read the same passage aloud. Start from the beginning of the story. Remember if you finish the passage before I say stop then start over again. Reader 1 will follow along.

13. Start. (Set timer for 1 minute.) Rotate around the room helping anyone who has trouble.

14. (After 1 minute.) Stop

15. Are there any questions?

16. Answer questions. Praise the students.

Day 3 or later

Practice "Best Reading" with Error Correction

"Every day after the practice read, you will do "Best Reading" with your partner. You will read for 1 minute instead of 2 minutes. Reader 1 will read first. The Helper will correct the missed words in a different way. When your partner misses a word you will tell the reader the word. The reader will say the word and keep reading. That's it." (You might want to put a marker of some sort next to Best Read: Fix the Word on the poster so students know that is where you are at.)

"Watch me. (Name) come to the front. (Put a passage on the overhead projector.). (Name) I want you to say a wrong word. Class, watch me".
(Name) reads and misses a word. Teacher points to the word and says the word (xxx). Reader says the word and keeps reading.

"Now, you can practice. Today we will only practice "Best Reading". Get your folders. Get out your passage and script. . Reader 1 (raise your hand) When I say "start" Reader 1 read out loud to your partner, Reader 2 (raise your hand). Remember if you finish the passage before I say stop then start over again. Reader 2 you follow along and be the Helper. Get ready".

"Start". (Set timer for 1 minute. Rotate around the room to help students who have difficulty.)

(After 1 minute). "Stop".

"Change readers. Now Reader 2 will read the same passage aloud. Start from the beginning of the story. Remember if you finish the passage before I say stop then start over again. Reader 1 will follow along and be the Helper".

"Start. (Set timer for 1 minute.) Rotate around the room helping anyone who has trouble and practice again".

Repeat as many times as necessary.

Day 4 or later

Practice Graphing Best Reading

"You are getting good at Partner Reading. We have one more thing to learn. Today you will learn how to graph your progress. Watch how I do this. (Name) come up to read". (Put a passage on the overhead projector.) "Read when I say start".

"Start. (Set timer for 1 minute.) If the reader makes an error correct the error by pointing to the word, telling the reader the word, have the reader say the word and keep reading. (After 1 minute). Stop".

"Watch how I put a line where (name) stopped reading. Now the Reader and the Helper count the words that (Name) read". (Note the Read Naturally passages are numbered and you will have to teach the students how to use the numbering system. For the decodable passages and other reading materials from class, the students will have to count the number of words read).

"I counted xx words. Remember how we make graphs. The Reader puts the date at the bottom. The Reader counts up one space for each word read. Mark it. Then color to make

a bar graph. Day-by-day the graph will get taller and taller. When you change to a harder passage, the graph will get shorter for awhile and then get taller again".
"Let's practice. We will do a "Best Reading". Reader 1 read first. Helper, correct the missed words by telling the word. The reader repeats the word and keeps going. Get ready. Start". (Set timer for 1 minute).
(After 1 minute.) "Stop".
"Reader 1, draw a line where you stopped reading. Reader 1 and Helper count the number of words. Go to the graph paper. Reader 1 make your own graph. Write the date at the bottom, count up one space for each word, make a line, color in the graph.
Reader 2, your turn to read. Helper, correct the missed words by telling the word. The reader repeats the word and keeps going. Get ready. Start. (Set timer for 1 minute).
(After 1 minute.) Stop".
"Reader 2 draw a line where you stopped reading. Reader 2 and Helper count the number of words. Go to the graph paper. Reader 2 make your own graph. Write the date at the bottom, count up one space for each word, make a line, color in the graph".

Day 4 or later

Put It All Together

"Get out your Partner Reading folders".
"Reader 1 sit next to your reading partner".
"Reader 1 get out your passage. Remember if you finish the passage go back to the beginning and start again. Helper get out the Fix the Word page. Remember first we do "Practice Read' and you use the Practice Read Fix the Words. Follow along while Reader 1 reads. Get ready".
"Start". (Set timer for 2 minutes.) Roam around the room helping any students who need help.)
(After 2 minutes.) "Stop".
"Switch. Reader 2 you will read aloud and Reader 1 you will follow along and be the Helper. Use the Practice Read Fix the Words. Get ready".

"Start". (Set timer for 2 minutes.) Roam around the room helping any students who need help.)
(After 2 minutes.) "Stop".
"Now it's time for "Best Read". Reader 1 reads aloud first. Reader 2 follow along and be the Helper, remember to use the "Best Read: Fix the Word".
Start. (Set Timer for 1 minute.)
(After 1 minute.) "".
"Reader 1 and Helper count the words. Reader 1 make your graph". (Wait for students to finish their graphs.)
"Change readers. Reader 2 will do "Best Reading". Reader 1 will follow along and be the Helper, remember to use the "Best Read: Fix the Word." Get ready".
"Start". (Set the timer for 1 minute.)
(After 1 minute.) "Stop".
"Reader 2 and Helper count the words. Reader 2 make your graph". (Wait for students to finish their graphs.)
"Good job. Pat yourself on the back if you felt like you did a good job reading".
"Go back to your seats and put your materials away".

Partner Reading: Teacher Script

Use after students follow the Partner Reading procedures with few problems.

⇒ GET SET STEPS

"Get out your Partner Reading folders". **(Alternative: "I will give you your partner reading folders".)**

"Everybody sit with your reading partner". After the students are sitting with their partners:

There should be a Reader 1 and a Reader 2. "Reader 1, raise your hand. Reader 2, raise your hand. Good".

"If you are reading out loud what are you called? " Reader." Good. If you are not reading aloud, then what are you called? "Helper." Yes, that's right. What does the Helper do? "Helps the reader when he or she misses a word. We Fix the Word". (point to Fix the Word chart).

"What is a missed word ("read wrong, skip the word, wait too long"). Good".

"Let's review what is in your folder. You should have": (have students point to each item)

- reading passage
- graph
- Fix the Word sheet

"Reader 1 & Reader 2 take out your reading passage".

⇒ GO STEPS

Practice Read

"First, we do "Practice Read".

"Let's look at Fix the Word for "Practice Read" If the Reader misses a word, Helper what do you do? (call on someone to answer, do random check). Good".

"Practice Read" means:

"Reader 1 (raise hand) read for 2 minutes. If you come to the end before the timer sounds, start over. Reader 2 (raise hand) follow along. Reader 2 you're the Helper and help Fix the Word".

"After the timer goes off, switch. Reader 2 reads for 2 minutes. If you come to the end before the timer sounds, start over. Reader 1 follow along. Reader 2 you're the Helper and help Fix the Word".

"Reader 1 (raise hand) and Reader 2 (raise hand) top of the page. Reader 1 start reading out loud". (Set timer for 2 minutes.) (Roam around the room helping any students who need help with the procedures or Fix the Word. Praise students who are improving.)

(After 2 minutes.) "**Stop**. **Switch".**

"Reader 1 and Reader 2 top of the page. Reader 2 start reading out loud". (Set timer for 2 minutes.) (Roam around the room helping any students who need help. Praise students who are improving.)

(After 2 minutes.) "**Stop"**.

⇒ GO STEPS

"Best Read"

"Get ready for "Best Read"."

"Let's look at Fix the Word for "Best Read". If the Reader misses a word, Helper what do you do? (call on someone to answer, do random check). Good".

"Reader 1 (raise hand) and Reader 2 (raise hand) top of the page. If you come to the end before the timer sounds, start over. Reader 1 start reading out loud". (Set timer for 1 minute.) (Roam around the room helping any students who need help with the procedures or Fix the Word. Praise students who are improving.)
(After 1 minute.) "**Stop. Reader 1, draw a line where you stopped reading".**
"Reader and Helper count the words read. Reader 1 make your graph". (Wait for student to finish graphing.)

"Switch readers. Top of the page. Reader 2 will read. Helper (raise hand) remember to use the "Best Read: Fix the Word" Get ready".

"Start". (Set the timer for 1 minute.)

"Stop. Reader 2, draw a line where you stopped reading".

"Reader and Helper count the words. Reader 2 make your graph". (Wait for student to finish graphing.)

⇒ FINISH UP STEPS

"Good job. Pat yourself on the back if you felt like you did a good job reading. Or **Stand up if you read better today than you did yesterday".** Or other similar praise.

Go back to your seats and put your partner Reading folders away

Appendix E Teacher-Directed Small Group Instructional Activities

Activity	Description	Time/Duration
Phonological Awareness activities	Segmenting & blending	3 – 5 minutes
Word Study activities		22 minutes
	Letter-Sound/Letter-Combination Correspondence	3 minutes
	Building Words	8 minutes
	Isolated Word Reading Fluency	3 minutes
	Reading in Decodable, Connected Text	5 minutes
	Writing Words in Personal Word Walls	3 minutes

Appendix F Interpreting Citations

Data citations indicate the specific source of data quoted or paraphrased and are included throughout the Chapter IV: Results and Chapter V: Discussion. They may be read in the following manner:

Example: (FOBS, 05-02-10, 270-279)

FOBS = source of data (Fall Observation)

05-02-10 = date: May 10, 2002

270-279 = line numbers from data source

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Vita

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