

**A Comparison of Intervention Tools for Improving Fluency,
Attitudes about Reading and Parent Participation
Through At-Home Reading for First Grade Students**

**Comparing use of the *We Both Read* series and its paired reading
format to typical “send-home-and-read” books or assignments**

FINAL RELEASE

SUBMITTED September, 2008

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Executive Summary/Abstract

This study explores the impact of specific text formats used within at-home reading times on first grade students' growth in fluency skills and development of positive attitudes about reading. It also investigates a parallel subject, parent involvement, with a focus on the time parents or family members spend reading together with a child of this age and whether such specific text formats can influence a change in practice and attitude among families with young elementary school children. Five hundred sixty-one (N=561) students from four states participated along with their families.

Various instruments such as the Dynamic Indicator of Basic Early Literacy Skills-Oral Reading Fluency/DIBELS ORF (Good, Kaminski, et al, 1996), the Elementary Reading Attitude Survey (McKenna and Kear, 1990), the Flying High with Fluency Rubric (Miller, 2006) and a parent survey and reading log specifically designed for this study were used to collect data.

Primary Findings:

The intervention was found to be superior to other forms of at-home reading materials when evaluated with a list of ten key criteria developed from research on text elements and strategies for improving fluency. Using text with specific formats that support reading growth provides a level of expertise and confidence for families reading with their children at home. Repeated reading proved to be the least understood and least utilized strategy among families.

Within a subgroup of students showing the most consistent reporting on the reading log in this study, the average ending DIBELS ORF scores for the experimental group was 34 points higher than the control group, a significant change. Under those circumstances, the experimental group showed not only a stronger growth in fluency rate and accuracy according to the DIBELS score, but a larger average number of minutes spent reading alone and a more positive attitude about reading according to the parent survey. Seventy one percent (71%) of students within the experimental group who recorded at least 30 minutes of parent/child reading together raised their DIBELS ORF scores more than 25 points. In contrast, only thirty eight percent (38%) of students within the control group had the same results. A positive correlation was found within *both* the experimental and control groups between increased DIBELS ORF Scores and increased reading time alone.

A particularly interesting connection was uncovered when examining the ratios and consistency of child/parent AND independent reading. In the case of the experimental group, the numbers of minutes spent in parent/child reading and those spent with the child reading independently were nearly the same (46 and 48 respectively) whereas the number of those minutes for the control group represented a much wider range (63 in parent/child reading time and 27 minutes with child reading independently). Although the total times (volume of reading) were roughly equivalent (90 and 93 respectively), evidently the ratio and consistency (much more evident in the experimental group) contributed to the difference. Even though the control group parents spent more time

reading with their children, there was evidently less impact on the student's fluency and attitude about reading among that group versus the experimental group. Why would the same volume of reading, then, produce different results on the assessments?

The theory is that a balance of child/parent reading time using a particularly effective format of text with a similar amount of student independent reading time has a higher effect than the parent simply reading a book without those supports to a child and less independent reading time. The interaction between parent and child as facilitated by the format of text evidently also encouraged broader independent reading by the child. It is suggested that the effective modeling and interaction which happened with *We Both Read* books, the exposure of students to higher level text structure and vocabulary during the adult's reading portion the support for new vocabulary building and the shared/paired reading experience during the parent/child reading time influenced and motivated students within the experimental group of the subset of consistently performing families to read more on their own (an average of 21 minutes longer per week).

Seventy-seven percent (77%) of teachers surveyed point to the intervention materials as important or very important in influencing positive attitudes about reading among their students exposed to them. The Parent Survey also reflected a higher gain for the experimental group from the parent's perspective of their child's reading attitudes.

The interaction of key factors which impact student reading motivation and behavior and growth in reading skills are complex and no one study can answer all the questions. However, the findings of this investigation are certainly important for classroom teachers, school administrators, social service agencies, and other organizations that encourage parent involvement in education with a focus on reading. Although not all the answers are clear, this study has revealed new factors for classroom teachers, school administrators, and parents to consider when working with first grade students and their families.

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Chapter 1: An Introduction

The foundation of this experimental research hinges on three major facts. First, the understanding that process of learning to read is a whole complex system of skills and knowledge (Adams, 1990). Researchers have studied this process, most intensely during the last 40 years and, as a result, the knowledge exists to teach all but a handful of severely disabled students to read (Moats, 1999). During the first grade year in school, the decoding and recoding are a major focus (Osborn, J.; National Reading Panel, Adams, M.J.). However, the rudimentary skills related to fluency begin at this stage and develop gradually over considerable time and through substantial practice (Armbruster and Lehr, 2001). Within that skill-building context, motivation remains an essential component (Guthrie, 2006).

Even with the body of research available to the education community, there is still more to learn about the process of becoming a reader, particularly as it relates to the influence of “outside of school” reading. Although family involvement in the process of learning to read has been shown to be an important influence especially in the early stages of reading development (Lancy and Bergin, 1992; Baker, L., Scher, D., Mackler, K. 1997; Snow, Dickinson, Tabors 2001), relatively few studies deal with the impact of specific types of text, when used within at-home reading experiences. This study examines whether a sharpened focus and the use of specific materials with specific design and imbedded support strategies can make a difference in children’s reading abilities and attitudes.

The research on family involvement reveals that many families view teachers as the “authority on education to be revered” (Erickson, 1996). Peter McDermott and Julia Rothenberg in their study of low-income families recognized that those parents “often perceive themselves as outside the school system and feel it is the school's responsibility to do the teaching (McDermott, Rothenberg, 2002). That alienation can lead to a “disconnect” between parents or primary caregivers and their own children’s learning-to-read experience. Busy lives and hectic schedules can also interfere and a growing number of parents do not have the experience from their own childhood of exploring books together. Can combining particular strategies within a specific text format be a possible means to impact attitudes of parents and students? Would those materials encourage more reading-aloud together at home? Would that additional at-home reading influence a child’s literacy growth?

A few researchers such as Dr. Lesley Morrow, from Rutgers State University, and Dr. Elfrieda Hiebert of the University of Michigan, have specifically investigated home-school connections and materials used within those as they relate to fluency development. In 2006, Dr. Morrow and her colleagues found that letting families know how they can help to support the school instruction at home, and employing methods and materials that are easy to use, are important factors for success (Morrow, Kuhn, Schwanenflugel, 2006). Too often parents are expected to learn strategies that are foreign to them and with which they have no frame of reference. This study will build upon these foundations and Monique Senechal’s work through the National Center for Family Literacy, to evaluate

how format and design of “take-home and read” materials improves parent participation and students’ reading skills, especially fluency.

Statement of the problem

In spite of efforts by teachers and schools to improve reading abilities of all students, there has been only slight growth (a 4 point increase in 4th grade reading scores since 1992 and 3 points in 8th grade reading since 1992) on average (National Assessment of Educational Progress Report, 2007). Hiebert (1991) contrasts literacy from previous decades with the current view: “In the old view, meaning was assumed to reside primarily within text, whereas in the new view meaning is created through an interaction of reader and text.” That raises the bar.

While most research in the last twenty years has focused on the improvement of reading skills through classroom instruction, to match the rising standards for literacy development, much less consideration has been given to the impact of at-home reading. Despite changes in classroom instruction, issues outside of school are still a factor. Although research on family involvement in general has increased, investigation into how parents, mentors, communities and students respond to materials that are used to encourage at-home reading, whether they reflect proven research strategies and how well those are designed, is much more rare.

Significance of this study

This study draws together effective combinations of strategies for improving at-home reading, specifically fluency, and evaluates whether specific text formats and approaches which include paired/shared reading, vocabulary introduction, modeling of fluent reading by an adult, and suggestions for repeated reading, help children improve reading skills and attitudes above that of traditional and commonly used “send-home-to-read” materials used by classroom teachers. Within that context, the study delves into whether such a format encourages increased parent/child engagement, resulting in more reading time for the child and stronger reading skills.

Dr. Leslie Morrow and her colleagues in their extension of Steven A. Stahl’s principals for improving fluency in at-home applications expressly point out the need for collecting data on students’ growth as a useful tool in evaluating such initiatives. That element has been incorporated into this study. By combining qualitative data from surveys, observations and interviews of teachers, families, and students, with quantitative data from administration of the Dynamic Indicator of Basic Elementary Literacy Skills assessment (hereinafter referred to as DIBELS Oral Reading Fluency or DIBELS ORF) and a variety of others, a better understanding of the components of a successful home-school equation for first grade populations can be found. The validity and strength of this study has been enhanced by the involvement of multiple researchers and independent evaluators with specific areas of expertise (a social scientist and a statistician). Their input has been invaluable in evaluating and presenting these materials.

Directional Hypothesis

Introducing materials containing a specific combination of research-based approaches for improving reading abilities (specifically fluency), and attitudes toward at-home reading to families will have a measurable impact on first grade students compared to traditional school practices and common materials used to promote at-home reading.

More specifically, this study poses the questions:

Does text with a specific combination of paired/shared reading, introduction of new vocabulary, modeling of fluency by a mature reader (a non-educator) and repeated reading have a measurable impact on the maturity of first grade student's reading (specifically fluency development), compared to common approaches used with families in today's schools?

In the same vein, does introducing materials in this format increase parental involvement with students' reading at home and positively improve their attitude about same (again, compared to current methods)?

Finally, does this approach impact children's attitudes about reading and, if so, how? Does it influence the number of books read or amount of time spent reading? (again, compared to current methods).

The answers to these questions will give educators a clearer view of effective means for engaging families in their children's learning-to-read experiences AND identify useful criteria for evaluating materials and at-home reading strategies that complement effective classroom instruction.

Chapter 2: Review of the Literature

The last thirty years have yielded a wealth of research that helps educators better understand the multifaceted task of learning to read. Skillful reading is not a unitary skill. It is a whole complex system of skills and knowledge (Adams, 1990) and motivation is certainly key (Guthrie, et al 2006). Core components such as phonological awareness, phonics, fluency, vocabulary and comprehension instruction (National Reading Panel, 2000) combine with factors such as motivation, attitudes about reading and actual volume of interaction with text (in terms of number of books read and time spent reading) with the result being a competent, thinking reader.

Obviously, one study cannot address the entire process or all of the intricacies involved. To limit the scope of the study, researchers investigated the impact materials used for encouraging at-home reading would yield, specifically increases in oral reading fluency (as showed from test results and a fluency rubric) and changes in reading attitudes and habits, and introduced a new set of materials for consideration.

Each segment of this review of the literature will address one of the above components and highlight major findings in educational research related to that element.

FLUENCY

The National Reading Panel (NRP) defines fluency as the ability to read text quickly, accurately, and with proper expression (NRP, 2000). Fluency is further defined in *The Literacy Dictionary: The Vocabulary of Reading and Writing* as “freedom from word identification problems that might hinder comprehension” (Harris and Hodges, 1995). Meyer and Felton define *fluency* as “the ability to read connected text rapidly, smoothly, effortlessly, and automatically with little conscious attention to the mechanics of reading, such as decoding” (1999). Regardless of the differences in breadth of definition, research supports the idea that fluency is critical to reading success. In fact, oral reading fluency is viewed to be the single best measure of reading competence for students learning to read according to Shinn, Good, Knutson & Tilly (1992). Torgensen, Rashotte, and Alexander (2001) found that direct measures of reading rates are highly correlated with measures of more complex reading outcomes such as reading comprehension.

Prominent researchers identify two primary ways in which fluency plays a part in learners' reading development (Kuhn & Stahl, 2003). The first involves the development of automatic word recognition, while the second deals with prosody, or those elements of fluency that allow oral reading to sound like spoken language (emphasis, pause placement, pitch changes, phrasing). Prosody develops as learners listen to and read along with skilled models of expressive reading.

Fluency is of such importance because it facilitates comprehension, the end goal of reading (Pikuski and Chard, 2005). As children become more fluent, a larger portion of

their cognitive abilities focuses on understanding what they read and less is needed to decode and recognize words (LaBerge & Samuels, 1974). It is well established that difficulties in automatic word recognition significantly affect a reader's ability to effectively comprehend what they are reading (Lyon, 1995; Torgeson, Rashotte, and Alexander, 2001). Beyond that, the most effective readers, even at the earliest levels, read in five to seven word phrases rather than word by word (Allington, 2001).

Fluency is so critical that researchers have identified it as one of two essential reading competencies necessary for that further growth (Chall, Jacobs and Baldwin, 1990). Reading Recovery and Fast Start, two successful research-based intervention programs used specifically with first graders, focus heavily on the two competencies of decoding and fluency as well. However, fluency is a skill not taught once and discarded but that develops and is fine tuned over time. For readers who are progressing normally, it is often not before the middle of second grade that the ability to read with expressive fluency and comprehension emerges reliably (Chall, 1983; Gates, 1947; Ilg and Ames, 1950).

Not only has research focused on defining fluency and its critical nature, but it has also identified several proven techniques to support fluency development. Helping the student understand the value of chunking words together to represent oral prosody is an essential part of moving from the one by one word delivery to a more understandable, fluid reading (Hook and Jones, 2002). The use of repeated and paired reading on a volume of text and the example of a fluent reader to model the techniques are apparent keys.

In assessing growth in fluency, it is helpful to look at not only the DIBELS Oral Reading Fluency benchmarks, since that is a common assessment for rate and accuracy, but also to look at other guidelines for these same fluency components recognized by fluency researchers. Dr. Tim Rasinski and his associates at Kent State University, authorities in the field, as well as Hasbrouck and Tindal, have identified scales for evaluating fluency, the details of which are provided for comparison below. The Alabama Department of Education's end-of-year benchmarks are also included since the majority of the schools in this study were located in Alabama.

Table 2.1: A Comparison of End-Of-Year Fluency Goals for First and Second Graders

Grade Level	DIBELS EOY Target	AL DOE EOY Comparison	Rasinski, et al EOY Rates	Hasbrouck & Tindal EOY Rates
1 st	40 CWPM	40-60 CWPM	50-59 CWPM	53 CWPM
2 nd	90 CWPM	90-100 CWPM	85-89 CWPM	89 CWPM

IMPACT OF VOLUME READING/PRACTICE ON FLUENCY

Researchers such as Osborn, Lehr, Heibert, (2003), Snow, et al (1998,) have concluded that one of the keys to children becoming successful readers is to give them a great deal of practice with reading, not only during the initial years of skill acquisition but on into upper elementary, middle and high school. This practice enables students to develop a sense of the patterns in the English language and an ability to process those quickly through repeated exposure. How quickly children are able to process words and chunks of words is directly related to their fluency. As children practice reading, they come to recognize larger and larger numbers of words by “sight” without having to sound them out or guess their identity from contextual clues (Ehri, 2002, Share and Stanovich, 1995). Research goes on to point out several types of practice that yield best results (repeated reading, paired reading, readers’ theater, assisted reading, partner or buddy reading). The National Reading Panel (2000), with their extensive mega-analysis of experimental research echoes the needed emphasis on repeated reading (see segment following on repeated reading).

Additionally the National Research Council report, *Preventing Reading Difficulties in Young Children* (Snow, Burns, & Griffin, 1998) states,

Adequate progress in learning to read English beyond the initial level depends on sufficient practice in reading to achieve fluency with different texts.

In his classic article, regarding the Matthew effect (the idea that the good reader gets better and the poor reader gets poorer), Stanovich demonstrated a clear relationship between fluency and the amount of reading in which a reader engages. Data from the 1992 National Assessment of Educational Progress (NAEP) (Pinnell et al., 1995) also reveals a relationship between reading rate and fluency, and self-selected reading in and out of school. The most fluent readers tend to be self-motivated, while less fluent readers are less likely to read in or outside of class. While the causal nature of this relationship has not been empirically established, it seems reasonable, according to Dr. Tim Rasinski, “to assume that fluency in reading leads to greater reading and greater reading leads to gains in fluency.” (Rasinski, 1994). In *What Really Matters for Struggling Readers*, Allington (2005) says that the key to developing fluency is finding authentic purposes for students to practice in an uninterrupted reading environment with access to appropriately leveled texts.

That same theme is essential in Dr. Jeanne Chall's stages of reading development (Chall, 1983). Students in stage one are at a critical “glued to print” level. “Ungluing from print” as Chall calls the stage three is most often accomplished when the amount of oral reading is increased and the corresponding short-term memory, cognitive abilities, and eye movement skills associated with more fluent reading mature. Research on fluency instruction by National Reading Panel and National Institute of Child Health and Human Development (2000) note that the best predictor of gains in reading is the amount of time spent reading so regular doses are essential.

Not only is time spent reading important at the early “learning-to-read” stage but Anderson, Fielding, and Wilson (1988) found that time spent reading books out-of-school was the best predictor of a child's growth as a reader from the second through the fifth grade. Time spent reading out-of-school has also been tied to vocabulary development, fluency, comprehension, and general intellectual development.

NAEP studies as recent as 2000 have shown that at every level, students who read more pages in school and at home had higher reading scores. The study by Anderson, Wilson, and Fielding (1988) mentioned above specifically found that fifth graders who read 40 minutes a day acquired almost four times the vocabulary of students who read only 12 minutes a day. Foertsch (1992) collected NAEP (1988 and 1990) data from a sample of about 38,000 students and found that students whose family encouraged reading activities at home had higher reading achievement. All these studies show there is a potent relationship between volume of reading and reading achievement.

It seems that not only volume of reading but also amount of print children are exposed to is critical. Stanovich and Cunningham (1990, 1991, 1997) in numerous studies have suggested that the amount of print children are exposed to has profound cognitive consequences. All of the studies mentioned in this section have demonstrated that reading a great deal is effective *regardless* of the level of a child's cognitive and reading ability. This is important because, for most readers, fluency develops gradually over time and through extensive reading practice (Biemiller, 1977-1978).

Although independent reading practice evidently makes up a portion of the voluminous reading necessary to gain fluency, it is also important to note that effective repeated reading (whether alone or with an adult) can have an impact on student fluency skills. When guidance and feedback comes from peers and families, as well as teachers in a reading situation, results are evident (Foorman & Mehta, 2002; Shanahan, 2002).

THE IMPACT OF REPEATED READING

As the overall concept of fluency has been investigated, effective strategies for improving it among young students have also been developed. Repeated reading is such an evidence-based technique. Repeated reading has two features in common:

- it provides students with many opportunities to practice reading, and

- it provides students with guidance in how fluent readers read, and with feedback to help them become aware of and correct their mistakes.

Dowhower (1994) reported that the research on the positive effects of repeated reading was so strong that repeated reading should in fact be “woven into the very fabric of daily literacy instruction.” A more recent case study of students ages 8 and 9, suggests that repeated reading is a condition that provided the most efficient instructional package for improving fluency, at least for students who have relatively high accuracy levels but low

fluency levels (Chafouleas, Martens, Dobson, Weinstein, Gardner (2004). In addition, they conclude that, for students with relatively low fluency and high error rates, some form of feedback or reinforcement might be most helpful (see section following on buddy or paired reading).

Although it has been addressed in research for the past twenty-five years, little attention was drawn to this practice until the National Reading Panel concluded that “children could become more fluent readers through repeated reading of text with monitoring or feedback from an adult.” (NRP 2000). As early as 1979, Samuels coined the phrase “repeated reading” to indicate reading a text more than once, particularly at a sitting (Samuels, 1979). Whether talking about repeated reading at school in a more formal environment or in a less structured situation at home, when a book is available for more than one reading, especially with feedback or guidance, these interventions show clear improvement (Pany & McCoy, 1988).

Not only is simple repeated reading effective, but also it is enhanced when efforts of word and conceptual overlap occur. In Faulkner and Levy’s 1994 research, those effects among grade level texts were examined with good and poor readers. Both good and poor readers exhibited the most transfer when the texts involved rereading (words and content were shared across readings). Poor readers also improved in speed and accuracy when high levels of word overlap occurred, even if those words were presented in stories with different content. The earlier studies by Dolch that identified the most commonly encountered words in our language support the idea that repeated exposure to a number of high-frequency words improves overall reading skill. This seems to connect back to the idea of repeated exposure to a variety of texts. When students have opportunity to read [and reread] text in which high frequency words appear commonly, their fluency benefits (Hiebert, 2003). This point is reiterated in a 1985 study conducted by researchers Rashotte and Torgensen. They concluded that fluency was only improved through repeated reading text that shared a high volume of the same words. Such repeated reading works not only when using the same text repeatedly, but when reading additional similar texts in terms of word overlap and similarity.

Stahl built perhaps one of the most extensive extensions to the ideas introduced by Samuels and others (and a practical guide for classroom teachers) in his documented intervention with second grade students (Stahl 1997). A strong element of this intervention was the infusion of many opportunities for repeated reading, including an element of reading at home.

As the idea of repeated reading took hold, a number of researchers developed variations. One repeated reading technique found to be effective by Pat Bowers and her colleagues (Bowers, 1993; Young, Bowers, & MacKinnon, 1996) is called assisted repeated reading. In this case, the child reads along with a fluent reader. In the process of listening and modeling, the child learns to read with better phrasing, more expression (called speech melody or *prosody*), and speed. An important part of this model is that teachers [adults] provide strong models of fluent reading to students (see larger segment regarding

modeling of fluent reading). To understand what fluent reading looks and sounds like, students need to hear appropriate rate and expression put into practice.

In a further effort to quantify elements of effective fluency instruction, Meyer and Felton (1999) reviewed a number of studies conducted on repeated reading. They concluded that the method of repeated readings improves reading speed for a wide variety of readers. In part, their recommendations for helping students to improve fluency include:

1. have students engage in multiple readings (three to four times);
2. use instructional level text;
3. use decodable text with struggling readers;
4. provide short, frequent periods of fluency practice.

As recently as April 2008, a study showed that repeated readings with text resulted in greater gains in fluency than repeated readings with word lists. Reading with natural prosody was most strongly facilitated by repeated readings of phrase-cued text, which provided visible support for sentence structure (LeVasseur, Macaruso, Shankweiler, 2008).

The National Institute for Literacy, a federal agency who facilitates the development of a scientific basis of reading instruction through the Commission on Reading Research joins the chorus of voices in favor of repeated reading to improve fluency. They concluded in their extensive review of current research that “students who read and reread passages out loud as they receive guidance and feedback become better readers.”

Since the study outlined and summarized in this document focuses on the effect of certain materials used during at-home reading, it is important also to consider research that specifically examines at-home repeated reading. Hindin and Paratore in their 2007 research did report the effectiveness of an at-home repeated reading intervention with eight low performing second grade students (who are likely to be performing at a level equivalent to end of the year first grade children such as those in our study). Results indicate that all participants demonstrated decreased error rates from the first to the last reading of stories, and significant fluency gains were evident in all cases when comparing mean baseline fluency with mean intervention fluency. All participants read more than 10,000 words during the home intervention and parents were involved in monitoring their children's home reading. From this study we can conclude that repeated reading can bring effective results not only in the classroom but also at home. Catherine Snow and her colleagues in *Preventing Reading Difficulties in Young Children* also identify reading and rereading as a strong component in supplemental intervention programs implemented by schools or after school programs such as Reading Recovery, Book Buddies, and Reading One-One. It appears that, regardless of the context in which rereading is practiced, it has benefit.

Even outside the United States, research supports repeated reading. Researchers in a Canadian five-year longitudinal survey found that storybook reading by parents at home appeared to have a bearing on children's oral language skills and fluent reading by the

end of grade 3 (8-9 years). The positive relation documented between reading storybooks in grade 1 and reading achievement in grade 3 indicates how important it is for families to continue to read to their child during the time he/she is learning to read (Senechal & LeFavre, 2002).

THE IMPACT OF MODELING BY A FLUENT READER

A host of researchers support the idea that an effective way to enhance fluency is for adults to read aloud to students (Dowhower 1987, Rasinski, 2003, Kuhn and Stahl, 2002). Dr. Tim Rasinski specifically adds emphasis to its importance when he names fluency modeling as one of three key building blocks for effective fluency instruction. Kuhn and Stahl (2003) also conclude that, by listening to good models of fluent reading, students learn how listening to a reader's voice can help text make sense. They identify that, by reading effortlessly and with expression, a variety of supportive adults can model for students how a fluent reader is supposed to sound during reading.

Drs. David J. Chard and John J. Pikulski (2005) specifically identify reading aloud as an effective method of providing students with a model of how to pace reading in connected text and how to infuse expression (attend to dialogue marks and punctuation). In the process of listening and modeling, the child learns to read with better phrasing, more expression (also called speech melody), and speed (Wolf, 2006). Dr. Chard also conducted a review of 24 studies relating to fluency acquisition (Chard, Vaughn, Tyler, 2002). His team's findings suggest that effective interventions for building fluency include an explicit model of fluent reading. All those findings tie back to the essential importance of prosody, reading with expression, "making meaning with your voice" (Rasinski, 2003). Eventually, a student should reach the level of fluent reading where they not only read with expression, but also think about whole phrases or sentences at once (Adams, 1990) just as the adult reader has shown them.

In a case study of an elementary school student involved in a one-on-one intervention with an adult reader (Nes Ferrara, 2005), an immediate model of a fluent reader to emulate was identified as an important component in the child's improvement in reading fluency. In addition, the identity of any unknown words in a passage was revealed during the listening phase. It was also importantly pointed out that, in order for the modeling and listening components to have an impact, the student must be actively engaged.

THE IMPACT OF BUDDY/BACK AND FORTH READING/SHARED READING (FORMS OF PAIRED READING)

In addition to the strategy of repeated reading, paired reading (which falls under the heading of guided oral reading), according to the results of the National Reading Panel's review, appears to be effective in not only improving fluency but overall reading achievement. Paired reading can either take place with both readers reading simultaneously (Topping, 1989) or with each reader taking a turn at the text (Rasinski, 2003). An addi-

tional adaptation sometimes called shared reading involves an adult reading most of the text and a child (or children) reading a small portion, with support if needed (Holdaway, 1979). All these help improve students' reading ability at least through grade 5.

In 1993, a study involving parents who were taught to use paired reading with their children was conducted. Although the results showed only slight improvement in the children's reading abilities, the parents reported significant changes in their child's confidence in their reading skills, their interest and willingness to read and their enjoyment of reading (Law and Kratochwill, 1993). Bus, Van Ijzendoorn and Pelligrini (1995) evaluated the impact of frequent shared book reading and found it to be "related to language skills, emergent literacy and reading achievement of school-aged children."

In 1996, Topping developed a simple format for parents to understand paired reading. Several of the elements of that model (particularly the support of providing a word if a five-second window has elapsed and giving coaching support, i.e. "you did a good job sounding out that word") are appropriate when reading one-on-one with a child.

The idea for shared reading in the classroom (developed from Holdaway's research in 1979), was based on the original concept of shared stories at home. The first purpose of shared reading has always been to provide children with an enjoyable reading experience, to introduce them to a variety of authors and the ways these communicators craft meaning, and to entice them to want to be readers themselves (Parks, 2000). The shared reading parents continue to do is a relaxed, intimate experience, focuses firmly on enjoyment and reading.

In addition to the idea that buddy reading has a positive effect on overall reading achievement, research has shown that reading in which students receive feedback regarding their performance is an effective means of increasing students' oral reading fluency (Eckert, Dunn, Ardoin, 2006). Their findings, although addressed with 2nd and 3rd grade students, do have an implication for younger students just beginning to develop fluency and reading skills.

THE INFLUENCE OF AT-HOME READING

Reading aloud to children has been broadly advocated as an important educational practice. In fact, one of the first landmark focus studies on reading (*Becoming A Nation of Readers*, 1984), named as one of their key findings the idea that "the single most important activity for building the knowledge required for eventual success in reading is reading aloud to children." The study also found that it is necessary for adults to read aloud to children not just when children cannot yet read on their own, but throughout all grades. When families and teachers scaffold or help a child's attempts to read the words in a story (compared to reading the words out loud to the child), even stronger effects are observed. It is interesting to note that Kuhn and Stahl (2003) also concluded that adult assistance is quite important and that it matters less whether the child is repeatedly

reading one text in those conditions or whether he/she is reading a variety of texts. The time spent seems to be more of an element.

Families and teachers have been increasingly encouraged to read aloud to young children as a developmentally appropriate practice by organizations devoted to research-based approaches such as the International Reading Association and the Association for the Education of Young Children. According to Farstrup and Samuels in the third edition of *What Research Has to Say about Reading Instruction*, (2003)

What works for developing expertise in sports also applies to developing fluent readers. Students need to be motivated to stay on task while they learn the subskills necessary for accurate decoding and they need to be motivated to practice reading so they develop automatic decoding skills.

Allington (1977) found in a sample of first grade students that as little as 16 words were read in a week by one child in a low-level reading group, compared to a high of 1,933 words for a child in the high-level reading group. The differences can, at least in part, be made up of at home reading experiences.

Many of the methods for improving reading and in particular reading fluency uncovered in this study of current literature can be effective whether they are used in the classroom or at home. According to the National Reading Panel's extensive review of research in their report in 2000, "repeated oral reading that includes guidance and modeling from teachers, peers *or parents* has a significant positive impact on word recognition, fluency and comprehension across a range of grade levels."

A panel of reading experts (the IRA Children's Choice Award committee of 2002), reviewed research and used that information to identify several ways families can help:

Reading aloud to the child.

Setting aside a time daily for family independent reading.

Reading alternate pages – parent reads a page, student reads a page.

When addressing at home reading, Lancy and Bergin (1992) found children to be more fluent and positive about reading when parent-child pairs viewed reading as fun, kept stories moving with a "semantic" rather than a "decoding" orientation, and encouraged questions and humor while reading. Successful family literacy programs promote parent-child interaction with many types of literacy events but the most effective ones focus on home-school programs that are easy. Content for such initiatives must be non-threatening and enjoyable (Morrow, Schobionko & Shafer, 1995).

A study completed just this year (Audet, Evans, Williamson & Reynolds, 2008) dealt with at home reading with pre-kindergarten through third grade. Their findings indicate that fostering reading is an important goal of parents in first grade and that parents who

rated this as an important goal were engaged in print-referencing behaviors and echo reading more than did parents with contrasting goals. The research implies that, appropriate forms of shared storybook reading play an important role in promoting reading motivation, and focus on creating a positive socio-emotional climate which, in turn leads children to be more interested in reading and more likely to view it as enjoyable (Baker, L., Scher, D., Mackler, K. 1997).

THE ROLE OF MOTIVATION

This literature review would be incomplete without the mention of motivation's effect in improving reading skills of first grade students. Children's attitudes about reading change over time when they become engaged in the reading process and their skills improve. Researcher, John Guthrie, has studied motivation extensively and his findings speak strongly to the importance of engaging children in reading in addition to teaching them reading skills.

In his 2006 study entitled *From Spark to Fire: Can situational reading interest lead to long-term reading motivation?* Guthrie concluded that, with repeated situational motivation (single positive experiences), students become positively disposed toward reading a range of topics and enjoying a variety of authors and books. That directly relates to experiences between a child and a caring adult. Under these conditions, he postulates, students' intrinsic motivation has increased to higher levels.

When considering motivation, it is important to understand that, within research, investigators focus primarily on task-mastery orientation and performance orientation. Individuals with a mastery orientation (and intrinsic motivation) seek to improve skills and abilities and to take on new challenges (Ames, 1992; Ames and Archer, 1988, Dweck & Leggett, 1988). Those students are interested in learning. "Individuals with a performance (or ego) orientation attempt to maximize favorable evaluations of their ability" (Thorkildsen & Nicholls, 1998). Performance orientation is seen as extrinsic motivation and is "associated with the use of surface strategies for reading" and a desire to complete a text rather than to enjoy it (Meece & Miller, 1999).

Guthrie also expects that "as students become markedly more interested in specific types of books, by specific types of authors, on particular topics, over time their generalized motivation becomes more positive. Likewise, as students' extrinsic motivation declines with respect to particular books by specific authors in concrete contexts, then their general extrinsic motivation for reading likewise declines." (Guthrie, Hoa, Wigfield, Tonks, & Perencevich, 2006).

Morgan and Fuchs (2007) extensively reviewed the research associated with motivation and came to this conclusion: "Children who read frequently grow to become skillful readers." In fact, given sufficient print resources, how often a child reads is explained by two factors - early success and motivation. After examining 15 studies that met their criteria for relevance and rigor, the researchers found that reading skills and motivation

correlate with and influence one another over time, but there was not enough evidence to say that one caused the other. Morgan and Fuchs note that motivation is a multidimensional factor that is difficult to measure and that must certainly be understood. They recommend targeting both reading skills *and* motivation for best results.

FORMAT OF THE TEXT

Research by Hiebert and Fisher (2005) looked at how the format of text used in instruction or practice impacts fluency development. These two researchers studied specific features of texts used to promote fluency and were interested in examining the effects of texts in which particular text features were carefully controlled. The treatment texts that Hiebert and Fisher designed had the following key features:

- a small number of unique words,
- a high percentage of most frequently used words,
- and often repeated critical words (those words that influence the meaning of the text most).

Students in the comparison group of the Hiebert and Fisher study read from texts typically associated with commercial reading programs. Students reading in the treatment texts made significant gains in fluency over their peers in the comparison condition. These findings suggested that the features of the texts being used to promote fluency should be carefully considered.

CLOSING OF LITERATURE REVIEW

Taking a comprehensive view of major factors contributing to young children's growth as readers has laid the groundwork for the design of this particular research project. It helped the researchers clarify strategies effective in the classroom and consider the impact of those strategies and methods when used within the home environment. It also has helped clarify that many of these strategies can be effective with parent/guardian/another adult and child reading together away from school. From this comprehensive overview, we now move to a description of the materials being used in this study.

Chapter 3: Research Methodology and Implementation Details

Introduction

In this study, researchers used a variety of both qualitative and quantitative methods to collect and analyze data. The main purpose of such combinations of research is to provide a more holistic understanding of the phenomenon being studied (Davies, 2000; Steckler et al., 2002). In today's assessment-dense educational environment, it is easy to forget that assessments and evaluations are but a snapshot in time, certainly indicators, but not an entire picture of any reader. Quantitative research allows researchers to take apart a phenomenon and examine component parts whereas the qualitative element can reveal how all the parts work together to form a whole (Merriam, S.B., 1998). Interviews of parents and teachers, more in depth evaluation of surveys from parents, teachers, and students, observations of students, and statistical analysis are all incorporated here to gain a more comprehensive view.

Cathy Puett Miller, Independent Literacy Consultant, TLA, Inc., served as the lead, coordinating researcher on this project. Dr. Lisa Dryden, Director of Graduate Programs for the Department of Education Texas Wesleyan University, managed the project with the three Texas schools involved. Dr. Darlene Turner-White, Assistant Professor at Athens State University (AL) managed the data collection at one of the Alabama sites and provided support for other Alabama sites as well as those in Tennessee.

Additional voluntary contributors include Betty Thompson, graduate student in the Statistics area of the Mathematics Department of the University of Alabama at Huntsville (who provided expertise in randomizing the sampling and conducting statistical tests on the data collected); Jamia Sheppard, a social anthropologist; and Dr. Louanne Jacobs of Alabama A&M University.

Independent Analysis of Materials

To avoid prejudice toward any particular materials, criteria for evaluating the texts themselves were selected before the actual materials to be used in the study were reviewed (see Table 3.1). The literature review and particularly the work of Drs. Elfrieda Hiebert and Leslie Morrow, were examined with an eye for how the concepts of developing family involvement, student motivation and improved fluency skills in early readers interact and influence one another. Key research-based factors for improving fluency and parent-child engagement were identified and a checklist created to include those.

Teachers were then asked to identify the materials they most commonly sent home for at-home reading (those would continue to be used with the control group). Most teachers mentioned either trade books/leveled readers, text from classroom curriculum or isolated paragraphs on the child's instructional reading level. The *We Both Read* series of books was chosen for use with the experimental group. The additional benefit to including the *We Both Read* series was that less than 10% of the teachers whose classes would be involved in the study had ever seen these materials and none were currently using them in their classroom.

Characteristics of the intervention materials include:

- a format which promotes modeling of fluency by an experienced reader (a research-based “paired/shared” reading approach)
- both leveled reading AND a higher level of text to be read aloud to the student (so both reading and modeling occur),
- introduction of new words by connecting first to a student's listening vocabulary and then having the new word repeated within the text the student is to read, and
- family-friendly instructions.

The three types of materials were then evaluated using the established criteria to determine how many were present in each. One point was assigned for each criterion met and a total calculated for each. Only a high level of consistency and explicit direction for a given descriptor (appearing in at least 75% of the texts) awarded the points to particular types of text. A simple scale of 1-10 (with 10 being the highest attainable) was established for each commonly used type of text (and the newly-introduced intervention).

Table 3.1 on the following page duplicates the checklist items from the evaluation checklist and provides an overview of which criteria each type of materials met consistently:

Table 3.1 – An Analysis of Materials with a Focus on Fluency Development and Increased Family Involvement in Children’s Reading

Descriptor	We Both Read series	Trade Books or Leveled Readers	Selected Text from Curriculum
A small number of unique words	II	II	II
A high percentage of most frequently used words	II	II	II
Often repeated critical words	II	II	
Specific Directives for Repeated Reading	II		
Parsing or segmenting text	II (child’s side)		
Assisted reading (Stahl et al., 1997)	II		
Word Reading Efficiency/Practice	II	II	II
Listening to strong fluency models (adult, more proficient reader or audiotape)	II	II*	
Focus on Vocabulary	II		
Strong support and guidance from adult/shared reading	II		

**only in the case of the child listening to the parent read a picture book or chapter book aloud; this was not necessarily a requirement when these materials were sent home.*

By using both materials schools commonly send for at home reading and new materials with specific text design, this study aims to better understand how teachers can successfully involve families as supplemental support to classroom reading instruction and impact the attitudes, skills and behaviors of reading among young students.

Initial Identification of Subjects and Randomized Sampling

Soon after the first contact with schools, when administration of the schools and districts invited had given a verbal commitment to the study, the principal, all first grade teachers, and the district school superintendents at each school were required to sign a participation agreement that formalized their involvement in this independent research study (see Appendices 1-4 for samples). Fifty-four (54) first grade classrooms in thirteen (13) elementary schools agreed to be involved in the study conducted over a ten-week period in the spring semester of 2008. These schools represented six distinct school districts across four states (Alabama, Georgia, Tennessee and Texas). Within those schools, rural, urban, and suburban environments were represented; some schools were regional and quite large, others had only two or three first grade classrooms. Nine of the schools represent city school districts or districts located in growing suburban areas, while the remaining four are considered rural schools.

A wide variety of demographics such as socio-economic circumstances (based on free and reduce lunch percentages), gender, ethnicity, chronological age, and academic level are reflected in the student pool. All national statistics come from recent U.S. Census Bureau Current Population Survey.

Thirty-eight percent (38%) of the students in the study were eligible for free and reduced lunch (62% were not) compared to 22.7% for children ages 6 through 18 eligible nationwide who fall at or below 185% of poverty.

An almost even distribution of males (257 or 48.5%) and females (272 or 51.5) participated in this study (national statistics on children in elementary and high school, the closest we were able to determine, show a distribution of 51% male, 49% female).

The average student was 6 and one half years old.

Two hundred twenty-eight (228) children of the 561 in the study (41%) were of some risk (or at risk in at least one category of the initial assessment used in the quantitative analysis).

Table 3.2 is organized to reflect students' ethnicity for the selected study group, as well as individual categories by participating state. Although numbers from current years were not consistently available, the trends and overall division of ethnicity is sufficient for an overview.

Table 3.2: Distribution of State Populations and All Study Participants by Ethnicity

Ethnicity	AL*	GA*	TN*	TX*	All Study Participants
White, non – Hispanic	58.9%	47.0%	67.83%	36.5%	60.71%
Black	35.0%	38.0%	23.10%	14.7%	24.64%
Hispanic of any race	2.9%	9.0%	7.02%	45.3%	6.43%
Asian	1.1%	3.0%	1.81%	1.25%	1.61%
American Indian	.6%	negligible	.24%	1.25%	.71%
Not identified	N/A	N/A	N/A	N/A	5.89%

**Percentage may total slightly more or less than 100% due to rounding or individuals reporting of more than one category of ethnicity – source: AL, GA Departments of Education, Texas Education Agency, 2007-08 school year, TN Department of Education 2006 (most recent available).*

In the school selection process, researchers were careful to not include schools with a large population of students enrolled in the schools’ ESL programs with limited English abilities. In this instance, the definition of ESL is an instructional title (students need remediation because of their lack of skill with English) rather than the literal meaning of ESL as any student for which English is a Second Language.

This decision was influenced by the language barrier between families primarily or solely speaking a language other than English and the researchers, plus the fact that only a few Spanish titles are presently available in either customary take-home-and-read materials and the intervention series. When students who were ethnically Hispanic had sufficient support at home, and parents or older siblings able to read English, these students were allowed to participate in the study.

Connecting with Schools to Establish Experimental and Control Groups

Since the study involved families reading at home with their children, all families of first grade students at each participating school were given an opportunity to take part (with the limited qualifier mentioned previously). The families and children agreed to serve as subjects by signing a permission/participation document. This self-selection process created our pool from which control and experimental groups would be drawn. Fifty-seven percent (57%) of the total 980 possible families were willing.

Once involvement at all levels was documented, and parent permissions were collected, the permission slips from the parents were used to produce a database of students. It was from that list that the statistician selected a randomized sampling to separate the nearly 600 students whose parents agreed to participate in the study into experimental and control groups. The unit for this randomization was student rather than whole classroom to balance more fairly the variable of different instruction between control and experimental groups that might be more evident if whole classrooms were designated as experimental or control. Although each classroom contained both experimental and control groups, those groups were randomized at the whole database level rather than the classroom-by-classroom level to protect the integrity of the sampling.

To further enhance the integrity of the randomized sampling, the three key researchers were not involved in the actual act of creating the randomization. Instead, an independent statistician from the University of Alabama at Huntsville randomized the student list into experimental and control groups, with identifying codes replacing student names. This randomization took into account chronological age, ethnicity, gender, academic status, and eligibility for free and reduced lunch (children with family incomes at or below 185% of the poverty level are eligible through the Food and Nutrition Service administered by the U.S. Department of Agriculture).

This study made use of the concept of a single blind study, with double blind components, from parallels in the fields of medicine and other areas where rigorous research is required. A single blind study requires that the subject(s), under no circumstances, knows whether he/she is designated for the experimental or control group until after the conclusion of the study. That concept was strictly applied in this study. Even after the close of the study, these facts were not revealed unless questions arose. During the administration of assessments used to collect quantitative data, neither the administrator nor the participants were aware of which students were in the experimental group and which were in the control group (the double blind component).

If questions arose about the fact that students were receiving different materials, it was explained as offering a variety, selected for the students' needs. The classroom teachers cooperated and received instruction on addressing these issues to protect the blind study during its implementation. Both of these approaches limit subject and investigator bias and contamination of results (U.S. Department of Justice, 2002). To further protect the blind study, teachers were required to keep the intervention materials in a protected area of their room, out of public view and only teacher access.

Teacher Orientation and Training

Before the onset of the study, each teacher attended a 30-45 minute training session in which they reviewed again with researchers their individual current practices in regards to at-home reading. The teachers were introduced to the intervention series (94.3% of the teachers had never seen this material and none were currently using these books in their classrooms). The format of the text was reviewed and key elements pointed out. Each classroom was provided with a set of approximately sixty (60) titles from the *We Both Read* series for use during the study. The procedures for protecting experimental and control groups and the confidential information being collected was closely reviewed, and teachers were allowed to ask questions about the study's implementation since they would be the primary vehicle of interaction with parents and students. It was essential that teachers understood what would be asked of families as well.

During the training, teachers were also encouraged to continue their normal distribution of take-home materials to everyone in the class except the experimental group. Teachers were allowed to include the non-participating students in the keeping of reading logs) and taking home of customary materials (although that data would not be subject to the study. This was emphasized to the teachers as a way to protect the blind nature of the study.

A multiple column chart was provided to each teacher as an aid to varied distribution of the intervention materials among students in the experimental group only (see Appendix 5). The headings across the top designated the level of reader:

- Below grade level – at risk
- Close to grade level – some risk
- On Grade Level
- Grade Level or Above/Challenging

These categories correspond to the levels K- 3 of the intervention books (representing the level of the right page/child's text). This allowed the teachers to quickly determine which books were to be distributed at which time to which students within the experimental group to maximize use of the titles in the series. Free selection on the part of students, although certainly a worthwhile approach, would have proved much more difficult for teachers to manage with the limited copies of the materials available. Steps for distinguishing the activities of the experimental and control groups were also reviewed.

While in the training sessions, teachers labeled the columns on their individual chart with the names of individual students in the experimental group. Multiple columns were available for each of the categories of student in case there were multiple students at the same level in any given classroom. Teachers determined the appropriate level of each experimental group student through their own insight and initial scores on a reading assessment schools had conducted. Since this study began in the second semester of the first grade year, that was a simple task for the teachers involved as they already knew

their students. They were given the freedom to switch the child to a higher or lower column if these materials proved to be too difficult or too simple for the child.

Once the names of their individual experimental group students were entered at the top of the column, each teacher, through the course of the study, followed the sequence of titles, in each column, below each students' name, distributing three, four, or five times a week, according to his/her regular pattern before the intervention. It was important to the single-blind element of the study that no distinction be made in the minds of the students or their families between the "take home and read" materials for the experimental and the control groups.

Although a search for schools that were not currently making at-home reading assignments, and relying solely on whatever reading materials the families had access to through other means, was conducted (as that would provide a particularly distinct comparison), finding such schools proved difficult. In fact, of all the school systems screened for involvement (27 in all), no schools were without some form of assigned or recommended at-home reading already in place. On the other hand, this fact easily preserved the nature of the single-blind study since all teachers were sending some materials home before the initiation of the study. Within the experimental group, teachers simply substituted the intervention materials for the materials they had been using before the ten-week study began. In one school, the teachers chose to add the intervention materials to existing assignments.

In addition to the delivery of an adequate supply of the intervention materials for exclusive use by the experimental group, and their list of participating students by group, teachers received a supply of Reading Logs (see Appendix 8) and welcome kits for families (details follow).

Family Orientation and Training

Once the orientation for teachers was completed, appropriate training for families was planned. Although the study initially considered providing this through specific direct interaction with families at the school site, after careful consideration, a simple set of directions and a welcome letter was substituted. Important factors in this decision included:

Whether it was possible to conduct training for both experimental group and control group families without compromising the blind nature of the study,

Whether researchers or teachers might inadvertently impress undue influence on experimental group participants, thus drawing the focus away from the various materials and their evaluation as a cause for change,

Availability of families to come to the school for training.

Crowded school calendars with many events already scheduled before the study began.

Instead of the group family training, two versions of a welcome letter with identical headers but different content/directions were distributed through the teachers to each family in the study. The welcome letters for the experimental group (see Appendix 6) included specific highlights of the features of the *We Both Read* books (paired/shared reading, vocabulary, modeling by a fluent reader and repeated reading) and were sent home with appropriate children. A separate and different welcome letter was sent home to the control group (see Appendix 7), encouraging those parents to read at home with the materials that were sent by the teacher.

Both letters included an emphasis on thanking the participants and on the importance of completing their reading logs and surveys. In addition, each teacher was provided with copies of reading tips for parents and teachers which related specifically to the intervention materials format (see Appendix 14) and encouraged to share them with parents so they would understand the best use of the books (although essentially the same instructions were included on the first page of each intervention book).

The first reading log and a parent survey (see next segment for details) were attached to the welcome letters to draw attention to the start up of the study (for both experimental and control group subjects).

At the distribution of these welcome kits to teachers, they were encouraged to interact with families, assure them of what was being asked of them and model appropriate techniques.

Assessments

Borrowing from the philosophy behind qualitative research where “using multiple investigators, sources of data and methods confirms emerging findings” (Merriam, S.B., 1998), a variety of assessments were used (with the same instrument for both pre and post in all cases but the teacher survey).

First, students in both the control and experimental groups completed an Elementary Reading Attitude Survey, the ERAS (McKenna and Kear, 1990). The developers of this instrument used Cronbach’s alpha, a statistic developed to measure the internal consistency of attitude scales (Cronback, 1951). This statistic was calculated at each grade level for both subscales and for composite scores (percentiles). With only two exceptions, coefficients were .80 or higher during this confirmation. The creators of this instrument did acknowledge that the stability of young children’s attitudes toward reading grows with their decoding ability and familiarity with reading.

Evidence of construct validity was gathered by several means during the development of this survey. Mean subscale scores significantly exceeded the mean in each case. Further details of this technical aspect of the ERAS are available in Dr. McKenna and Kear’s

article detailing this survey in the May, 1990 issue of IRA's *The Reading Teacher* (McKenna, Kear, 1990).

The ERAS (see Appendix 9 for sample and Appendix 10 for scoring sheet and percentile chart) was administered as a whole group activity (even students not included in the study had a chance to complete the survey and teachers received copies of those as a benefit of participating in the study). Each question was read aloud and repeated if necessary so that even struggling readers who might not be able to read the survey themselves could participate.

These surveys are particularly appealing for first graders since they incorporate a pictorial format with only four choices (with "4" representing the happiest Garfield, the most positive attitude, and "1" representing the most unhappy Garfield, the most negative feelings). The surveys were administered by one of the three researchers on this project or the anthropological social scientist, trained in the administration of the survey.

As mentioned earlier, an initial parent survey was sent home for completion and returned through the classroom teacher (see Appendix 11). This parent survey was created by adjusting the viewpoint of the questions on the ERAS to a parental perspective. A few additional inquiries relating to library use and reading at home were added. It followed a similar format to the ERAS with parents able to choose on a scale from 1-5 (representing "strongly agree", "agree", "unsure or don't know", "disagree" and "strongly disagree"). For convenience sake, this was called a parent survey although references throughout this document to "family" versus "parent" have been made frequently out of respect for the diversity of family units and primary caregivers of students in our study. Primary caregivers were given two chances to complete each survey (pre and post) and the option of calling the lead researcher to complete the survey by phone.

An initial fluency rubric based on work by Dr. Tim Rasinski and staff at the University of Oregon (Miller, 2006) was also scored for each student as they read from a first grade level text. A copy of this fluency rubric and the instruction for administration appear in Appendix 12. The rubric is scored on a five-point scale with one being the lowest level and five being the highest. Each number contains five boxes attached to a description of a reader. As administrators listen to a child read a first grade leveled text for one minute, they spend a certain number of seconds listening for evidence of items listed under number 1, the same amount of time each for 2, 3, 4, 5. The remaining five seconds are used as an overview while continuing to listen to the child read. It is expected that most first grade students at mid-year will score a 1 or a 2 at least. By the end of the year, it is more likely that students will score at a level of 2 or 3 (although 4s and 5s are not unheard of).

The rubric score established a baseline for each student's fluidity, phrasing, expressiveness and prosody, key elements of fluency (Rasinski, 2005). The beginning average score for the experimental group was 2.35 and for the control group 2.25. Rate and accuracy (other components of fluency) were assessed through administration of DIBELS (Good, Kaminski, et al, 1996).

The DIBELS (Good, Kaminski, et al, 1996) assessment (see Appendix 13 for a sample scoring sheet) was specifically selected to evaluate rate and accuracy in oral reading fluency. The components used in this study correspond to those typically administered to first grade students and represent a set of standardized, individually administered measures of early literacy development. This assessment was chosen because it was already being used in all participating schools in Alabama and Georgia so no extra time had to be taken from the school day for these assessments. Schools using DIBELS already had a strict administration rule where someone other than the child's teacher administers this instrument. In Texas and Tennessee schools, where DIBELS was not used, researchers and trained research assistants voluntarily administered this instrument to all students in the study. The Oral Reading Fluency benchmark (the primary data to be used from the DIBELS assessment) for mid-year, first grade is 20 correct words per minute; the benchmark for end of the year is 40 correct words per minute.

Because this is such a widely used instrument (chosen by the U.S. Department of Education's Reading First Division as a core assessment for Reading First schools), this report will not take the space or time to give details on the validity of this instrument. For those who are interested in those details, they can be found at <http://dibels.uoregon.edu/techreports/index.php>. DIBELS is not the only instrument for assessing fluency and indeed there are variances between expected fluency levels on different instruments. However, since DIBELS was already being used in 9 of the 13 schools in the study, we chose to use this measurement of oral reading fluency for the ease of the schools involved.

Other Data Collected

Besides the assessments, data was also collected on the number of library books individual students in the study checked out during the month prior to the start of the study (to help identify volume of reading). At the end of the study, the same data was collected for the last month in the study. The media specialists at the individual schools were able to provide a report isolating checkouts of each student for these purposes.

Students kept a weekly reading log which reflected their reading with a parent or other family member and the independent reading they chose to do. It did not record their in-class reading time or the time devoted to lessons and homework assigned.

A teacher's informal observational survey was created for completion at the study's close (see Appendix 15 for a list of sample questions). This survey added further understanding about the impact of at home reading and particularly the newly-introduced intervention materials. This survey also polled teachers about their impression of the materials and asked opinions about continued use after the study was concluded. The commercial survey website, SurveyMonkey.com, was used to produce the survey. Each teacher received a link to the survey and responded anonymously via the Internet. It was especially important to keep this survey blind so participating teachers would feel free to make honest and frank comments.

A final qualitative component was added for use at the end of the study. A sampling of parents who completed surveys was contacted for more in-depth interviews.

Process During the 10-Week Study

All data from the pre-assessments was collected by one of the three researchers involved in this project or by trained research assistants under their direction. At all times, effort was made to protect the data as required. Mrs. Miller's office assigned all students a code in place of their name, organized and retained all the data by school, and transferred the raw data into a database. This database was held in a secure location, awaiting the final (post) results. Sufficient copies of each of the assessments were retained for use as post assessments.

The experimental group received copies of the intervention books to take home three to five times a week during the ten-week study. The control group took home their assigned materials (basal excerpts, trade books or leveled readers) with the same frequency. Each school shadowed the routine already established in the school year for frequency of distribution of at-home reading materials. For example, if a teacher had been sending home books or materials for at-home reading four times a week prior to the study, she continued to use that same frequency with both her control and experimental groups. Each teacher received sufficient intervention materials to use with the experimental subjects in his/her classroom. The books distributed ranged from kindergarten through third grade reading level to accommodate a wide range of reading abilities. At no time were any specific materials promoted or especially encouraged so that comparisons could be fairly made.

Teachers distributed reading logs (and various materials) on a regular basis over the course of 10 weeks. Reading logs were turned in regularly and students were encouraged to log their at-home reading time (both minutes they spent reading alone and time spent reading with an adult). The researchers were in contact with teachers from time to time to collect logs and encourage continued participation. Mrs. Miller also encouraged the teachers to have parents contact her with any questions or comments directly in order to capture additional information and conduct more in-depth, on the spot surveys.

Post Assessments/Closure of the Study

The study had an excellent retention of students in both the control and experimental groups. A mere twelve (12) students were lost during the study due to relocation. When students were absent on the day of a post-assessment, as many of them as was possible were tested another day.

After the 10-week window of participation, students again completed the Elementary Reading Attitude Survey (ERAS) and post-DIBELS. Parent surveys were also completed (the same survey as was used at the beginning of the study) and the results of another

fluency rubric were recorded for each student. Additionally, final logs were collected and students' library book checkout volume was recorded.

Once all parent surveys turned in at the close of the study were collected, Mrs. Miller called approximately 50 families to ask consideration for a follow-up interview. Twenty-four (24) parents agreed to the secondary interview and those were conducted via telephone calls. In addition, reading logs were reviewed for comments and the results are noted anecdotally in the findings segment of this report.

Once the post assessments were conducted, the researchers organized and forwarded the post data to Mrs. Miller's office for input into the master database. The database was then dispatched electronically under secure conditions to the statistician at University of Alabama at Huntsville for cleansing, and statistical tests and analysis.

Specific Methods for Data Analysis

In research studies, evaluators often find answers but they also find even more questions. That is without doubt the case with this study. The challenge was to understand what affected change and which factors played a role. Having said that, it is important to remember that the nature and complexity of children learning to read (including their sometimes inconsistent response to test or survey conditions) makes it complicated to target a single intervention as the total cause for improvement. Denzin (1970) defines triangulation as "using multiple investigators, multiple sources of data or multiple methods to confirm the emerging findings" and this methodology proved critical in identifying trends and distinctions to arrive at a clearer picture.

Use of a true randomized sampling and recruitment of a sizeable study pool added strength to the process. Other modifying factors (variables) within this study included ethnicity, chronological age, gender, economic status, and beginning level of DIBELS first grade scores. When analyzing quantitatively, a 95% measure was used to decide if the difference between control and experimental groups was significant. When that level of statistical significance was not obtained, but potential trends were evident, that data was reviewed with additional information collected during the course of the study for confirmation. Triangulation, comparing a variety of results from different perspectives to arrive at an understanding of a phenomenon, was also used to analyze findings and draw conclusions and implications for school application and further research.

A variety of tools were used to evaluate quantitative data collected. These calculations tested for validity and significance using predictive analysis software from SPSS and SIGMA XL.

An independent statistician from the University of Alabama at Huntsville cleansed the data for errors and irregularities and conducted tests such as:

- T-tests
- Pearson and Spearman Correlations
- Tests for Variances (including F-tests, Levine's test for P values)
- Mann-Whitney Test for Medians
- AD Normality Tests for P Values

Surveys, documentation of interviews, observations, and reading logs were reviewed and data mined from these documents as well. Their contents were categorized and phenomenological analysis conducted to glean information about specific responses and parent/student comments. This allowed evaluators to employ different combinations of perspectives to search for possible causes or results of certain actions by study participants.

Assumptions

Due to the size of the study and the various locations of schools involved, it was impractical for the three researchers to interact closely with families and students on a weekly basis. By shifting that responsibility to the teachers, it was assumed that they would encourage and support families and act as the focal point for questions from the experimental group about reading with their child. It was also assumed that the teachers would follow closely the guidelines set out for them in the distribution of the materials and management of the paperwork involved.

Researchers had to follow the supposition that parents who signed up to be a part of the study would follow through on their obligations which included reading with their children and completing the reading logs.

An additional assumption in regards to the assessments was that honest and appropriate answers to the surveys would be received from teachers, parents and students. Neither Mrs. Miller nor the other researchers were employees of the school systems involved and no consequences existed for teachers, families or students who participated or did not participate in the study.

The literature available on survey research indicates that some respondents provide answers they believe are socially appropriate, rather than answers that accurately reflect their actions and beliefs (Alreck and Settle, 1995). To reduce social desirability, all surveys were kept confidential and that was communicated to all parties. The teachers left the room or covered their ears during appropriate parts of the student survey when the questions related to attitudes about the teacher or his/her actions as a means of emphasizing to students the frankness expected from their answers. Teacher surveys were anonymous. Parents completed their surveys in the privacy of their homes. With young children, there is always the assumption during assessments that they will reflect their

true, best effort. We know that factors such as self-confidence, mood and well being all contribute to maximum performance on any given assessment. For that reason, the quantitative and qualitative results will be reviewed in close conjunction.

Limitations

One limitation in this particular study was the finite amount of time (10 weeks) families and children were observed. Such a short period of time may not be sufficient to impact designated student targets, particularly those such as fluency that may not develop consistently until the end of second grade or beyond. One recent study (Fuchs et al. 1993) found that first grade students could gain 2-3 words a week in correct words read per minute, while most second graders are making higher gains (2.5-3.5 words a week). In fact, the National Assessment of Educational Progress (NAEP), found that nearly half of American fourth graders have not achieved a minimal level of fluency in their reading, which is associated with significant difficulties in comprehension while reading silently (Pinnell et al 1995). Being cognizant of all these factors, the researchers recognize that this study views a snapshot of students' fluency, early in its developmental stages.

The fact that the study was conducted in four states with nearly 600 participants made intensive follow-up with reading logs and surveys somewhat difficult. In the future, when using these tools, constructing conditions for an even more stringent buy-in by study participants or a smaller pool of participants than was accomplished in this study may be warranted.

The researchers allowed students who were of another culture and whose primary language was one other than English to join freely in the study with one limitation: if they had no adult or older sibling to read with them at home, they could not participate. That was simply because the element of parent/child reading was prominent in this study. Also, there were a very limited number of titles written in other languages among the intervention materials used by the experimental group, and often, the common classroom materials used by the control group.

Perhaps the greatest limitation of the study was the complexity of the reading development process itself. Many factors contribute to a child's fluency, and indeed, to his overall reading achievement as well as his attitudes about reading. The children in the study were not in 100% clinical situations. Each day they interacted with a variety of individuals and reading material, all influencing their growth as readers (or lack of it) in some way.

Regardless of these truths, the researchers controlled as many variables in the data collection and analysis as possible and conclude that sufficient controls were in place to examine the questions posed and arrive at valid deductions.

Chapter 4: Quantitative and Qualitative Research Findings/Results

DIBELS Assessments of Fluency

When examining the entire group of students participating in this study, the experimental and control groups Oral Reading Fluency score for the DIBELS assessment was separated by only two points at the beginning of the study. In the post evaluation, the experimental group gained an average of 6 more points than the control group on the DIBELS Oral Reading Fluency assessments.

Specifically, students' average beginning DIBELS ORF score in the control group was 45; the experimental group began at 43. At the end of the study, the control group's average DIBELS score was 65, a gain of 20 points, and the experimental group's average score was 69, a gain of 26 points. Against the average gain of 20 points for the control group, the average gain of 26 points for the experimental group represents a 30% greater improvement.

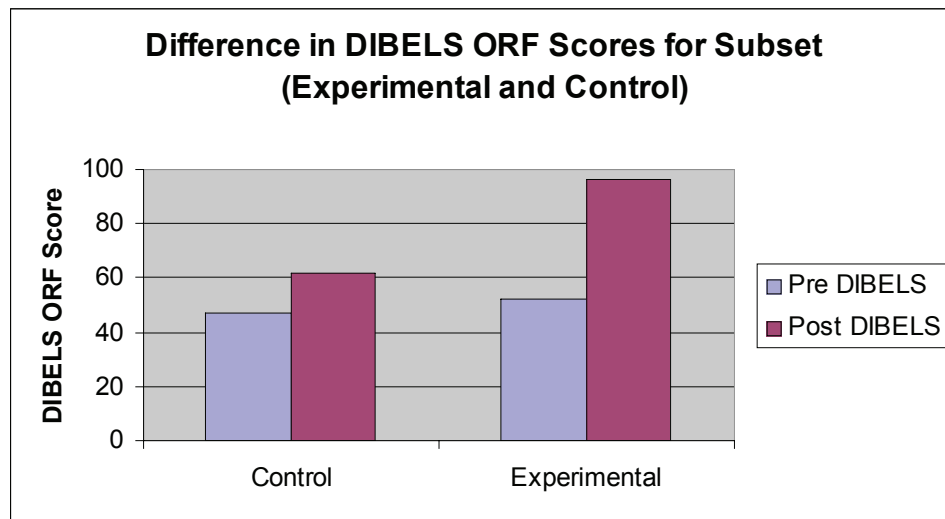
In a study this size, it is often important to view subsets within the data, especially those reflecting more consistent participation, to determine the actual impact of the intervention materials and the materials used by the control group. When that step is taken, significant distinctions emerge.

To focus on students who were regularly exposed to the intervention and control materials, a threshold of 30 minutes per week (average parent/child reading together time) was selected as a minimum number to identify a subset for review. That level reflects at least three 10-minute reading sessions with families during the course of a given week and should indicate a level of consistency. This threshold, of course, does not include the reading that students were doing in the school day or during homework assignments in subject matter other than reading (a variable which was not controlled). The subset of students with those regular reading patterns numbered 156 (28 percent of the entire study population).

Once that threshold was set, a review of the DIBELS ORF scores for the experimental and control groups within this subset was conducted. At the beginning of the study, both the experimental and control groups for this subset were less than five points apart in average beginning scores. However, when examining the same averages in DIBELS ORF scores at the end of the study, the experimental group scored an average of 34 points higher than the control group, a significant change (p 2-sided value of $=.05$). The beginning score for the control group was 47 and the ending score was 62, a gain of 15. The beginning score for the experimental group was 52 and their ending score was 96. This gain of 44 points for the experimental group was significantly higher – almost 3 times the gain of the control group. These differences in DIBELS ORF scores are illustrated in Figure 4.1. The “at-risk readers” within the experimental group (those with beginning DIBELS scores in the lowest third of the group) showed almost identical improvement, averaging 43.3 points in score improvement from their beginning scores.

Understanding the value of such change is enhanced when Fuchs' identification of anticipated growth in correct words per minute read is reviewed. According to the rate determined by Fuchs et al (1993), 2-3 words per week defines appropriate fluency growth for early readers. Students in the experimental group who read with their parents at least 30 minutes per week advanced on average 4 words per week, whereas those in the control group only advanced on average 1.5 words per week. Again the gain of the experimental group was almost 3 times the gain of the control group.

Figure 4.1: 30 Minutes Minimum Weekly Reading with Parent Impact on Average DIBELS ORF Scores



To define what caused this significant difference in DIBELS scores among the most consistent students (those with regular exposure to both the control and the experimental materials), the number of independent minutes and the number of parent/child minutes reading together for each subset needed to be examined more closely. These findings are addressed in the area of this report that discusses the reading log.

The Flying High With Fluency Rubric

Kuhn & Stahl (2003) emphasize in their research the important dual components of fluency development. Not only is automatic word recognition and ability to read quickly important, but also prosody, expressiveness, and fluidity contribute. Using the Flying High with Fluency Rubric, the entire experimental group gained 4.5% more than the control group from the beginning to the end of the study. While a 4.5% gain is not significant, it does point to greater gain for the experimental group. Since prosody is a more complex and higher level of fluency skill, it is postulated that these first grade students were at least somewhat typical for their age and that it is often not before the middle of second grade that the ability to read with expressive fluency and comprehension (the factors judged by this rubric) emerges reliably (Chall, 1983; Gates,

1947; Ilg and Ames, 1950). The emphasis on rate imposed by many classroom teachers (perhaps simply because it is easy to assess) may have influenced the improvement in pure speed reflected in the DIBELS assessments but it does not explain the differences between the experimental and control groups. By testing the additional elements of fluency development mentioned by Chall, Rasinski and others, it is possible to more fully understand how students receiving fluency support and explicit fluency instruction in the classroom develop along this continuum.

Qualitative Analysis of Materials

Before this study began, a selection of each of the reading materials (both those to be used by the control group, as provided by the teachers, and the newly-introduced materials for the experimental group) was evaluated in light of the findings from the literature review (see methodology segment for details-see Table 3.1).

Selected text from the reading curriculum or isolated paragraphs actually met the fewest criteria. Perhaps assignments with those materials were not focused enough (the books were simply sent home with instructions to read them to the child or have the child read them). A motivation to read on the part of the parent and/or student may have been minimal or absent, or parents may have been uncertain about how to help their child and may not be confident enough to ask for details (Epstein, 1995). Several teachers within the study, especially among traditionally higher risk, less involved populations, did indicate they had difficulty with children completing at-home reading assignments.

Trade Books/Leveled Readers met fifty percent (50%) of the criteria, reflecting a more specific focus with multiple characteristics mentioned in Hiebert and Fisher's research (Hiebert and Fisher, 2005) such as a small number of unique words, a high percentage of most frequently used words, and often repeated critical words (those words that influence the meaning of the text most). However, the trade books and leveled readers offered little or no support to parents outside of those characteristics just mentioned, either within the text format itself, or in the form of a directive instruction in the front or back of the book.

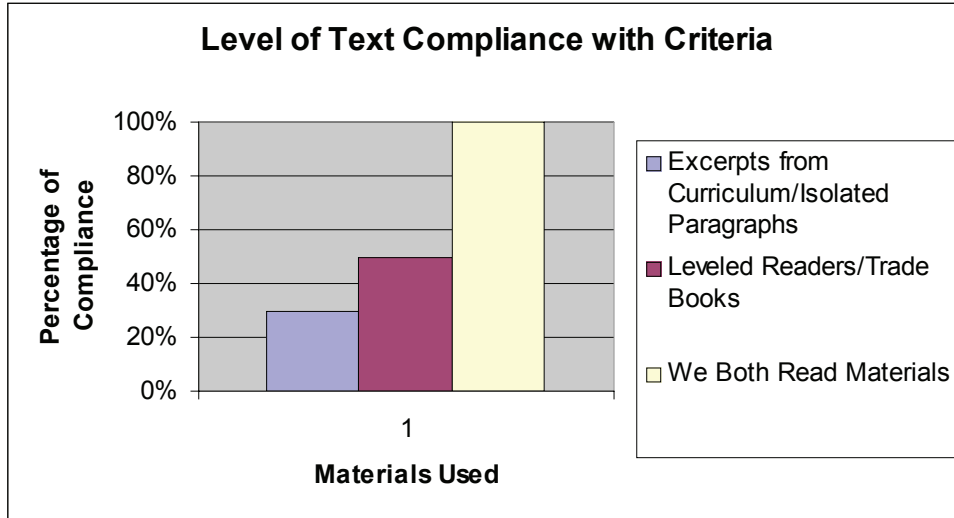
The intervention materials, the K-3rd grade series of *We Both Read* books, contained not only the format characteristics of Hiebert and Fisher but also:

- a suggestion page for parents within each book,
- an emphasis on modeling by a fluent reader as well as bold type on the parent's page first with the same vocabulary repeated on the child's page (vocabulary support), and
- a built-in paired/shared reading format.

It also provided a platform for what Samuels (2002) calls "practicing reading."

The graph below shows results of the initial review of materials. A list of the specific criteria used in the evaluation appears in the “associated review of materials” at the end of the literature review.

Figure 4.2: Level of Text Compliance with Criteria



Teacher Surveys

The teacher surveys asked specific questions about which reading skills educators saw most affected by the intervention. It also focused on teacher observations and opinions about how the intervention materials compared with commonly used materials already a part of their classroom “at-home” reading assignments and what impact, if any, they had upon students.

Sixty-five percent (65%) of the teachers involved in the study responded to this on-line survey (35 out of 54). Their responses added to our understanding of how at-home reading materials are used (and their effectiveness) from the teacher perspective. Eighty-five and a half percent (85.5%) of the teachers perceived the intervention materials as equally or more appealing to families than materials they were currently using. Additionally, when asked to consider how closely the intervention materials satisfied purposes they had identified for their students’ at-home reading, eighty-eight percent (88.6%) indicated the intervention materials to be much preferred or equal to other materials in meeting their objectives with students. Only 10% viewed them as less effective in that regard. All teachers responding to the survey (100%) identified the paired reading format of the intervention text as a significant factor in increasing at-home reading with families. None of the materials sent home prior to this study (or currently used with students in the control group) contain that element. One hundred percent (100%) of teachers also indicated that they planned continued use of the intervention materials in their classrooms going forward (evidence, albeit subjective, of both the teacher’s recognition of value and their determination to incorporate these materials into work with families to build fluency and positive attitudes about reading). Sixty-three percent (63%) of teachers had specific applications in mind such as placing the

intervention materials in their “check out and take home” libraries in their classrooms during the next school year. Teachers planned to use them as:

- A vehicle for encouraging parents to read with their children (48.5%)*
- A part of regular at-home reading assignments (21.2%)*
- The core of a new reading initiative at their school (21.2%)*

**teachers were able to chose as many of these as were applicable so these numbers add up to more than 100%*

Since teachers had already informally evaluated the materials they were using currently as part of their initial selection process (prior to the introduction of the study), this circumstance offered a unique opportunity to capture how effective the newly introduced intervention materials were in comparison. The following table summarizes teacher responses when asked to rank the *We Both Read* intervention materials in terms of meeting goals relating to at-home reading:

Table 4.1: Summary of Teacher Responses

	Very Important	Important	Somewhat Important	Not Important
Increasing parents’ involvement in their child’s reading development	55.9%	35.3%	5.9%	2.9%
Increased reading time together	51.4%	28.6%	14.3%	0%
Improving students’ overall attitudes about reading	37.1%	40.0%	17.1%	5.7%

Finally, teachers responded that the intervention materials were more effective than the materials the control group used in these areas (teachers were able to mark several):

- Increased reading interaction with parents (50%)
- Increased reading time at home (41%)
- Increase in students’ fluency rate (32%)

Contrary to other related responses on the teacher survey and the findings revealed by the reading logs data, teachers reported a perception that the intervention had the least impact in the change in volume of reading.

Student Surveys (ERAS)

Student attitudes toward reading, both recreational and school-related, according to this survey instrument, did not change significantly as the semester progressed for the experimental or control group. There were specific changes for individuals within both populations and those were corroborated in case studies with other consistent findings.

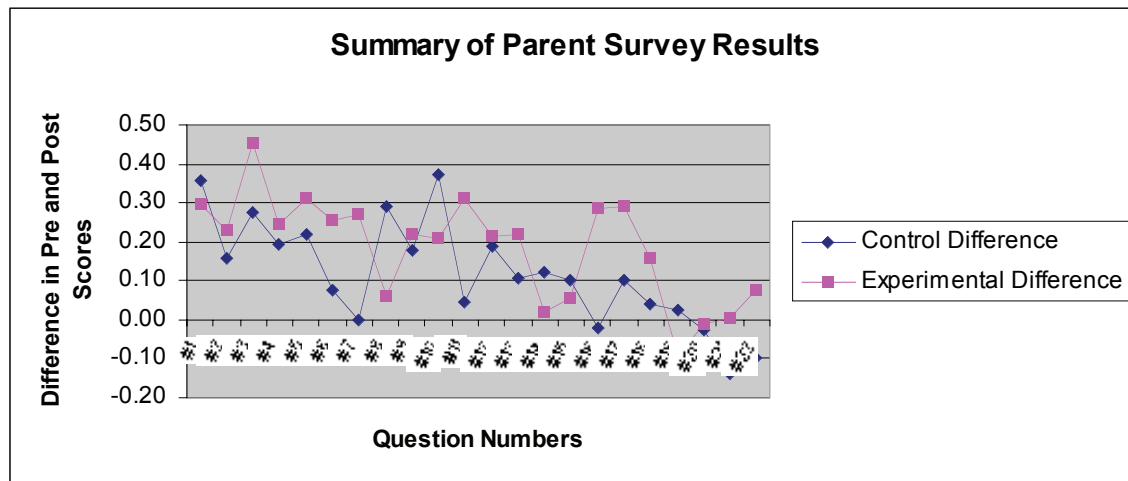
Even with this instrument's history of validity, the fact that young attitudes and feelings about reading are still forming may have contributed to the seemingly inconsistent responses. The creators of this instrument themselves (McKenna and Kear, 1990) acknowledge it is possible that stability of young children's attitudes toward reading grow with their decoding ability and familiarity with reading. That could contribute in this instance. Qualitative analysis of documentation, including that of observations by researchers during the course of the study, sheds further light (see case studies later in this section).

Parent Surveys

Both control and experimental groups show an increase from the parent's perspective in their child's attitude about reading from the pre to the post assessment. Initially, the parents' perspectives of whether their child was a good reader began with the control group showing a more favorable level, on average, than the experimental. However, by the end of the study, the average amount of improvement in that category (as estimated by parents) showed a greater increase for the experimental group (a 4.2-point change which equates to one level of improvement compared to half as much of a change (a 2.6 point improvement) for the control group. Although the change did not reach the level of significance, the p value (2 sided) for this instrument (.14) did reflect evidence of a high level of probability, which makes it unlikely that these changes were by chance.

The chart shown in Figure 4.3 creates an overview in which trends are more obvious. One can see that, in 73% of the cases (16 of the 22 questions posed), the experimental group showed greater positive change than the control (with some of those changes evident to the level of significance).

Figure 4.3: Summary of Parent Survey (see Appendix 11 for wording of questions)



Greater insight is possible if responses to specific questions are analyzed. The following segment includes comments relating to specific questions:

1. In questions 2-5, relating to various aspects of the child reading aloud (comfort, fluency, etc.), more improvement is evident within the experimental group than the control group. Question # 3 showed a particularly distinct difference favoring the experimental group (and specifically asked if the child sounded as though he/she was talking when he/she was reading), an indicator of improved prosody.
2. The parent’s perception of the child’s heightened interest in reading was much more evident among the experimental group (question #7).
3. Question #8 was phrased in a reverse response format so shows that more control group parents perceive their children prefer to read alone, whereas more of the parents with children in the experimental group see their children preferring reading with someone (possibly a reflection of experimental group parents’ response to the paired/reading approach used in the intervention and the lack of understanding control parents might have about the values of reading with children, even after they gain a basic competency). As children continue to enjoy interactive reading with their parents, they receive additional benefits such as exposure to higher-level vocabulary and hearing a mature reader model fluent reading (Cole, et al, 1998).
4. Question #10 was a similar question, phrased in the positive. Responses indicate that parents in the control group saw their child much more likely to read on their own (again, perhaps a reflection of their lack of understanding of the continued value of reading aloud with children after they have started to learn to decode).
5. Question #16 presented the statement “My child talks with me about books or stories he/she is reading.” It asked parents to respond with “strongly agree”,

- “agree”, “unsure/don’t know”, “disagree” or “strongly disagree.” It revealed the greatest difference in pre and post assessment between experimental and control, with parents in the experimental group showing a strong perception of a positive change in how much their child talks about what they are reading.
6. Question #17 asked whether the parent or guardian believes their child has trouble with reading instruction in the classroom. The amount of change in response to the positive (less trouble) was considerably more for the experimental group from the onset of the study until the close. The same was true for Question #18 which asks about children viewing reading as a “classroom only activity.” The amount of average change for experimental group is considerably greater.
 7. Question #19 identified how often the families read at home regularly together. This instrument indicates families’ perception of the volume of change from the beginning of the study to the end remained constant. The more objective reading log data seems to indicate that, within the experimental group at least, an increase occurred. The reading log is much more sensitive to reflecting such changes over time than the survey which is limited to five levels of response. That may explain the difference in results.
 8. The only question whose results contradicted the trends outlined above was question #10. The parents from within the control group believed their children were choosing to read on their own outside of class more often at the end of the study than the beginning. However, the average of time spent reading alone by the students according to the reading logs does not support this presumption. Instead those averages show that, on the whole, the experimental group grew in its minutes of reading alone consistently and maintained the growth through the ten weeks of the study, whereas the control group peaked in the first two-three weeks of the intervention (in terms of volume of alone reading time) and then trailed off through the remainder of the study. Their average independent reading time was lower. More details on the reading log data are reflected in that segment of the findings.

Finally, when a rise in family engagement occurred (as reflected by comments and positive gains on the parent survey), within this subgroup the student’s DIBELS Oral Reading Fluency scores also rose for the experimental group only.

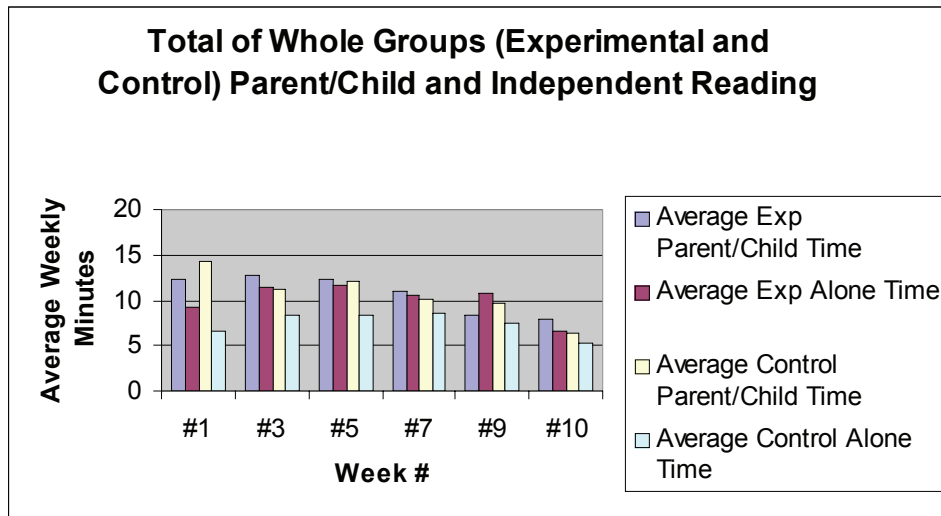
These details support observations made by researchers when interacting with teachers. Such details offer a means for a more in-depth examination of the realities within these groups of students and tell more than statistical analysis. The value of qualitative research is illustrated here as it “strives for depth of understanding” (Patton, 1985).

Reading Logs

The reading logs provide valuable insight, especially into what occurred with the students who showed the most dedication to logging in minutes they read at home with another family member or independently. Figure 4.4 is a summary chart that allows trends to be identified and then viewed in triangulation with other data (in both the experimental and control groups).

The experimental group always read more in the entire population of the study (with the exception of the sixth week when the control and experimental group were virtually at the same level of total reading time), perhaps in part because of the higher level interest in the intervention materials, even during the drop off that occurred at the end of the study. Whether this decline seen at the last week in the study is due to the school year ending or another factor is undeterminable with the existing data.

Figure 4.4: Comparison of Trends in Average Minutes for Experimental and Control Group Students (Includes Parent/Child Reading & Independent Reading Times)



In contrast to the larger group reflected in the above figure, in the subset of students reading at least 30 minutes a week with a parent, the experimental group read on average 48 minutes per week independently. The control group, in contrast, read 27 minutes per week independently. Independent reading may have benefited both groups and such a discovery is consistent with comments from researchers such as Dr. Tim Rasinski who emphasizes that, although the specific causes and effects have not been exclusively identified, “fluency in reading leads to greater reading and greater reading leads to gains in fluency (Rasinski, 1994). If improvement is tied to independent reading (as our statistics seem to indicate), are differences in independent reading the only factor? What led those students to read more on their own?

Although there was growth for both groups within this subset, those in the experimental group were reading by themselves 21 minutes longer on average than those in the control group, and with a great deal more consistency after the first week (see Figure 4.1). Although additional in-school reading that the students may have been required to do could have an influence on these results, it is unlikely since the factor of teacher instruction was minimized through the study's selection process. Both experimental and control groups were established in each classroom, to limit the instructional impact. Although teacher quality might account for some of the overall high range scores among the students in the study (as well as the actual volume of reading overall), it is interesting to note that although those factors were similar, the experimental group still improved much more on the DIBELS Oral Reading Fluency assessment. Perhaps the distinction between the experimental and control groups is more likely a particular element within the reading time itself or a special combination of reading with a parent and reading independently.

To test this supposition, the volume of parent/child reading for the subset (who reported reading at least 30 minutes with parents) was examined. Surprisingly, the control group actually spent more time reading with a parent on average than did the experimental group (an average of 63 minutes compared to 46 minutes for the experimental group). It would seem logical that the additional time in a supported reading environment would yield stronger scores but the opposite was true.

If the volume of reading time or teacher quality were not benefiting factors, perhaps a much closer balance between the child/parent reading time and the independent reading time evident within the experimental group in the subset (where the significant changes in DIBELS ORF appeared) is meaningful. Although the average reading time overall was similar for both the experimental and control groups (90 minutes for the control group compared to 93 total minutes with the experimental group), there was a distinctly different ratio of parent/child reading to independent reading within each group.

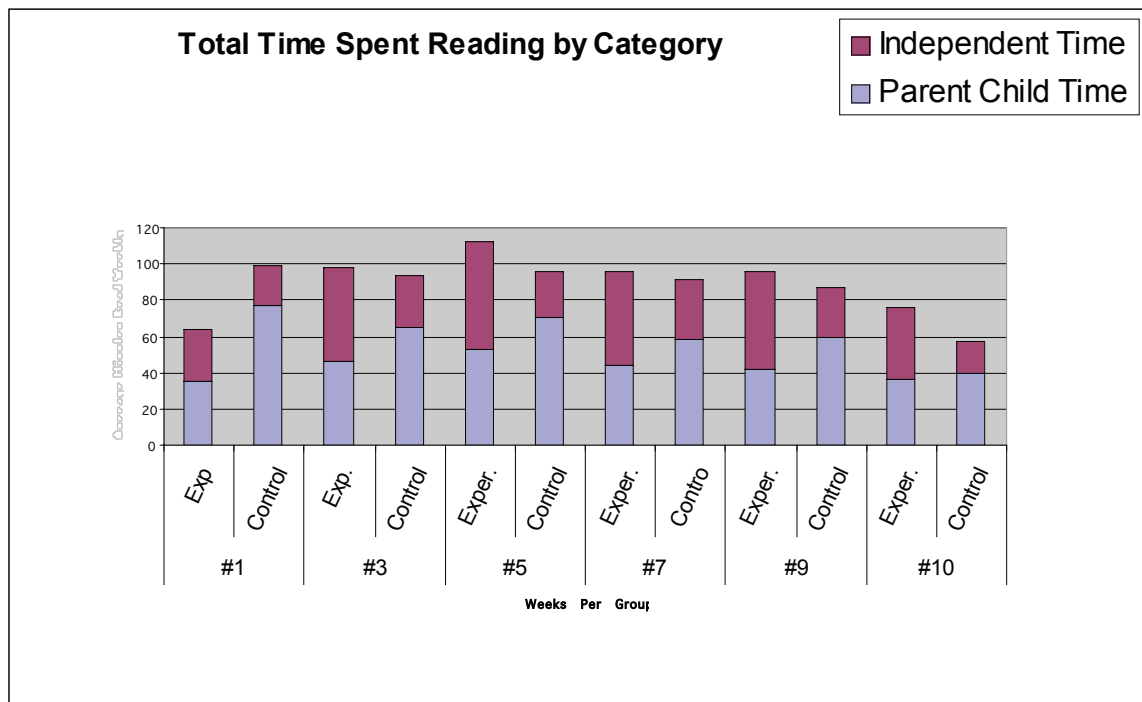
The average minutes of reading per week in the experimental group showed a greater consistency and balance between parent/child reading and independent reading (45 and 48 minutes on average per week respectively). The average minutes of reading per week in the control group showed an imbalance skewed toward parent/child reading time (63 minutes and 27 minutes respectively). Since the experimental group subset showed significantly greater growth in fluency improvement, yet they spent less time than the control group in parent/child reading time, this points to an efficiency of fluency growth per unit of time using the *We Both Read* intervention materials. Additionally, on average, the experimental group chose to read on their own 21 more minutes a week on average. The greater consistency on the part of the experimental group also seems to be a factor impacting the improved fluency (as evidenced in the DIBELS ORF scores).

What then facilitated that evidenced consistency? Parent/child reading time, according to how it is practiced, may not be enough to facilitate an improvement in fluency. The format of the *We Both Read* intervention materials does provide structure for paired

reading between an adult and a child and may explain the phenomenon of the greater consistency. Dr. Steven Herb of the University of Pennsylvania has stated children who are “read to on a *regular* basis” do better in school. Cunningham and Stanovich (1997) add their voices to confirmation of this important fact in their research on early reading acquisition. Their findings were that *individual differences* in exposure to print were found to predict differences in the growth of reading comprehension ability throughout the elementary grades and thereafter (fluency is the bridge to comprehension). They also mention the changes in motivation that occur when children are read to in that way. The trends among students’ reading patterns in this study do suggest a growth in motivation. Figure 4.5 illustrates that, in the experimental group, there was a steady dose of parent/child reading time and an increase in the amount of independent reading minutes per week (except in the aforementioned final week of the assessment). Even in that week, when the amount of reading time declined for both groups, the consistency and balance as well as the volume of reading remained higher for the experimental group. Note the difference between the first week’s averages (in which the control group was much higher overall than the experimental group) to the last week in which the reverse was evident.

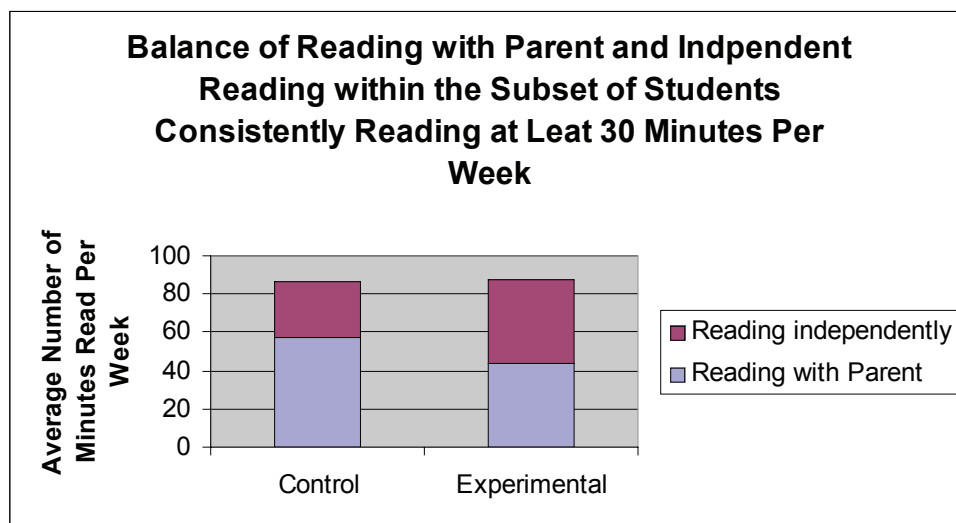
Other factors that have the potential to have impacted these trends are available time for and commitment of the family to spend time reading together. However, it is unlikely that such consistency as was seen in this study would have been evident in one week or sustained as consistently as it was if those were the sole causes. Morrow (1995) found that parents in her study who understood how to help their child were motivated to continue, something that is certainly a possibility in our study from the evidence here.

Figure 4.5: Students Reading More Than 30 Minutes per Week by Group



The balance with which the experimental group read independently and with a parent reveals a stronger pattern of reading than the control group. Note that the experimental group always read more minutes combined than the control after the first week. Figure 4.6 further summarizes the differences in balance between the experimental and control groups. The control group parents spent 67% of the child’s entire reading time reading together (only 33% of the child’s reading time was independent). In contrast, the experimental group spent 49% of their child’s total reading time in parent/child interaction with a text and 51% of the child’s time was devoted to reading on his own. The children in the experimental group received a specific combination of independent reading practice and reading with adult assistance and interaction. This key distinction is illustrated below in Figure 4.6 as a summary of the data in Figure 4.5.

Figure 4.6: Ratio of Reading with Parent to Reading Independently



The experimental group reading logs turned in were also much more likely to contain comments from families about their child’s response to the intervention than the logs kept by the control group. These comments give further insight into the experiences children and their families had within their parent/child reading time and even give a glimpse into the child’s independent reading time. The blank reading logs provided to both the experimental and control groups were identical and asked for a sentence or two from parents to confirm that their child actually read the reported book(s). Not only did families in the experimental group note details in the spaces provided, but several families wrote specific notes at the bottom or in the margins, where there was no prompt. These comments highlighted the value of the intervention, another indicator of increased interest in reading with their child. That correlates with the larger increases among the experimental group in DIBELS Oral Reading Fluency scores, when looking at the families who most consistently reported minutes read and their categories.

Seventy one percent (71%) of the experimental group recording at least 30 minutes of parent/child reading on average per week raised their DIBELS scores more than 25 points. In contrast, only thirty-eight percent (38%) of the equivalent control group had those results.

Case Studies

As the study progressed and researchers individually interacted with a small number of parents, simple case studies were compiled. These case studies developed randomly as families responded to inquiries or communicated directly with the primary researcher with questions or comments. Such case studies allow researchers to capture input from parents and gain further insight. Six summaries of case studies are included here:

Case #1

This female Hispanic student (6.07 years old at the beginning of the study) was involved in experimental group in a small city school in north Alabama. The mother stated that, before their participation in the study, the daughter only read comic books and didn't really read very much. At the end of the study, the parent commented that "she likes to read now."

Comments from the parent point to that, not long after this child's family began the intervention, the mother saw her child's vocabulary improve as they talked about the specific words highlighted in the text, first on the parent side (containing higher-level text and more complex sentences) and then on the child's side (leveled reading). The mother also shared that her daughter enjoyed each "partner" having a reading part. "She even wanted to read my part when we reread the story a second time." These comments solidified what the data exposed: the text format was an influence.

Consistency was strong between the comments shared from the family and five of the six instruments/data pools used to record progress:

Table 4.2: Student #1 Case Study Summary

DIBELS ORF Pre/Post	Fluency Rubric Improvement	Parent Survey	ERAS (student survey)	Reading Log	Library Book Checkout
21 – 72 (30 points above benchmark)	33%	+10	+6	N/A*	+1

**This student did not keep a reading log with enough consistency to record it in the pool of analyzed data. (NOTE: The comments from the mother plus and scores above are consistent with her reading frequently with a family member and alone even though she didn't keep as consistent a log).*

This female Hispanic student’s growth in DIBELS Oral Reading Fluency (rate and accuracy) is comparable to her improvement in prosody and expressiveness as reflected in the Flying High with Fluency rubric results. Her fluency gain as reflected through that instrument (over 4 words per week) is above Fuchs’ rates for average improvement in fluency. Her gains on that instrument were considerably high than the average gain for students within her classroom. She attended one of the suburban Alabama schools and was six years old at the onset of the study (not eligible for free and reduced lunch). Comments from the parent are consistent with the results from the student and parent surveys even though we did not have a consistent reading log. In this instance, the intervention seems to have been a strong influence in the positive gains of this student and certainly provided a vehicle for support at home.

Case #2:

This female Caucasian student (7.04 chronological age at the beginning of the study and eligible for free and reduced lunch) attended one of the Texas schools and participated in the control group.

Table 4.3: Student #2 Case Study Summary

DIBELS ORF Pre/Post	Fluency Rubric Improvement	Parent Survey	ERAS (student survey)	Reading Log	Library Book Checkout
90-96 (54 points above benchmark)	20%	+12	+11	20 min wkly with parent; no independent reading time recorded	0

This mother appeared satisfied with her child’s progress in reading (as evidenced by personal conversations and her parent survey). She did note that the student and she read the books sent home together but she did not comment on her child’s independent reading time. The student’s gains on the DIBELS Oral Reading Fluency kept her just above benchmark and the growth was consistent with Fuchs’ recommendation of 2 words per week (higher than most of her classmates). However, her score reflecting attitudes about at home reading fell while the score for attitudes about school-related reading rose within double digits. This indicates a stronger influence from the school environment on reading attitude. The consistent reading aloud with a parent always has the potential to influence outcome but it does not seem to have been as key a factor with this student and, with the limited data, it is impossible to define its effect. No time for independent reading was recorded on her reading log.

Case #3:

This Caucasian male student’s chronological age was 6.06 at the onset of the study. He was not eligible for free and reduced lunch and was part of the experimental group in a rural school located in east central Alabama.

This child’s mother commented that “these books really helped him more than what the teacher had been giving out.” This statement reinforces the evidence from the text format review conducted at the very beginning, before the interaction with text and families began. The levels were of particular importance to her and she was pleased with both she and her child having a chance to be involved in the reading. “He particularly liked the variety of stories and the nonfiction books.”

Table 4.4: Student #3 Case Study Summary

DIBELS ORF Pre/Post	Fluency Rubric Improvement	Parent Survey	ERAS (student survey)	Reading Log	Library Book Checkout
37/87 47 points above benchmark	27%	+3.5	+9	79 minutes reading with parent; 19.2 reading independently	+50

This student improved during the course of the study in every area, particularly in the area of increased interest in reading (as reflected in his library book checkout level, his ERAS score and several responses on the parent survey). His growth compared to Fuchs’ guidelines was strong on DIBELS Oral Reading Fluency. He recorded a consistent blend of reading time with a parent (about 16 minutes a day) with a smaller time allotted for independent reading at home.

Case #4

This student was an African-American child (chronological age 6.06) from a suburban Texas school, eligible for free and reduced lunch participation and participating in this study as a control group member.

Table 4.4: Student #3 Case Study Summary

DIBELS ORF Pre/Post	Fluency Rubric Improvement	Parent Survey	ERAS student Survey	Reading Log	Library Book Checkout
17/37 remained just below benchmark in both pre and post	20%	+1	-12	Spent an average of 53 minutes per week reading with parent and 25 reading alone	No change

According to her father, this child was required to read both with an adult and by herself (as reflected by the logged times). However, her attitudes evidently did not change and in fact seemed to decline during the course of the study. She stayed just below the level

of benchmark for first graders at both mid-year and end of school DIBELS assessments. Her growth was similar to what is expected from Fuchs’ estimations. Although her numbers peaked in the middle of the study, logging up to 130 minutes reading with a parent and up to 60 reading by herself (according to the reading logs) between the fifth and seventh weeks, it seemed to have limited impact on her reading abilities. Since we know that volume of reading has an impact on reading abilities, this seems unlikely unless the reading log was not accurate or the child was not engaged in the reading process. Disengagement seems consistent with the drop in her ERAS score. Motivation continues to be a strong factor in student success. Research supports the claim that shared storybook reading plays an important role in promoting reading motivation, and focus on creating a positive socio-emotional climate which, in turn leads children to be more interested in reading and more likely to view it as enjoyable (Baker, L., Scher, D., Mackler, K. 1997).

Case #5:

This child was an African-American male, eligible for free and reduced lunch at a small Alabama city school. He was seven years old at the beginning of the study and was a part of the experimental group.

DIBELS ORF Pre/Post	Fluency Rubric Improvement	Parent Survey	ERAS student survey	Reading Log	Library Book Checkout
67/69 (little change but well above EOY first grade levels)	14% (to a level of 2.4 out of 5)	+9	+10	Average of 16 minutes with parent; 73 alone	4

This student provides a snapshot of a more fluent reader (with his fluency scores reflecting a level consistent as benchmark with 3-4 months into the second grade year). His fluency improvement was less than some of the other cases but still consistent with his DIBELS ORF scores. His library book checkout also rose, an indicator of positive feelings about reading. His attitude about reading certainly improved (which was consistent with the increase in fluency and higher level of books checked out at his school library). His parent’s confirmation of those positive changes is reflected in her survey score. Most of the time throughout his recordings in the reading log, he spent most of the parent/child time reading the intervention materials with a parent and then spent much more time as an independent reader at home.

Case #6:

This male of multi-racial descent was a part of the control group and eligible for free and reduced lunch. He attended a small inner city school in Alabama.

DIBELS ORF	Fluency	Parent	ERAS student survey	Reading Log	Library Book Checkout
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Pre/Post	Rubric Improvement	Survey			
5/11 This student was scored "at risk" both in the pre and post assessments.	0%	-2	-3	N/A*	9

**this student did not consistently keep a reading log so that data is not available.*

From the evidence in the chart above, it is obvious that this child had many issues. Coming from a potentially more at-risk home environment (as evidenced by the free and reduced lunch percentage), and having such low reading fluency scores (his phoneme segmentation and nonsense word reading fluency, from other segments of the DIBELS assessment) did improve during the 10-week period). His survey score and that of his parent's seem to indicate a consistent drop in attitude about reading, possibly frustration at not being more successful. His library book checkout did improve, which could be a positive sign of things to come or a requirement of his family or teacher. His mother indicated that she was concerned but that they really didn't read at home together much because she was working two jobs as a single mother.

Chapter 5: Discussion and Conclusions

For clarity, limited discussion has already been included in the findings. This chapter includes further discussion, conclusions and implications related to the specific questions posed at the beginning of the study and offers a summary.

The greatest value in this analysis came from exploring the subset of students who returned reading logs with the greatest constancy. That is where the most consistency was seen in growth in DIBELS assessment scores, parent scores on attitude surveys and teacher responses to the intervention materials. Although the findings were not absolutely conclusive, this study did meet its goal of evaluating whether specific text formats and approaches which include paired/shared reading, vocabulary introduction, modeling of fluent reading by an adult and suggestions for repeated reading can help children improve reading skills and attitudes. The findings also show strong indications that such formats have the potential to increase parent/child engagement in reading together, resulting in more reading time for the child, which should ultimately mean stronger reading skills. Parents in the experimental group documented an improved interest in reading for their child and more frequent discussions surrounding books.

A response to each of the beginning research questions highlights additional conclusions.

Question #1:

Does text with a specific combination of paired/shared reading, introduction of new vocabulary, modeling of fluency by a mature reader (a non-educator) and repeated reading have a measurable impact on the maturity of first grade student's reading (specifically fluency development), compared to common approaches used with families in today's schools?

Response:

Although not within the range of the highest level of statistical significance, the DIBELS Oral Reading Fluency scores did show a stronger improvement among the entire experimental group participants using the intervention text. A statistically significant change was apparent when DIBELS Oral Reading Fluency scores were examined for those students whose families most consistently completed reading logs (those most regularly exposed to the variety of materials). Students in the experimental group within this subset scored on average 34 points higher on their end-of-year DIBELS Oral Reading Fluency than the control group students. Those students who had the greatest DIBELS improvement (over 25 points) were more common in the experimental group than the control group. Comments from the parent surveys also indicate the specific format of the intervention text contributed to improving the at-home reading experience and students' reading abilities. In additional comments obtained from parents during interviews, the specific components most meaningful in helping their children improve as readers were:

1. the paired reading approach, including the interactions that happened between parent and child while reading together
2. the combination of higher-level text and leveled text
3. the vocabulary focus

These elements were explicitly pointed out within the introduction to each of the materials used by the test group but were only implied or most often not addressed at all in the majority of the materials being sent home for reading purposes. That difference had an effect, but it is impossible to ignore that the material's use was certainly influenced by the parents' willingness (Morrow, 2006).

The most valuable results were evident when that factor was removed by only viewing reading logs for families who reported reading with their child at least 30 minutes a week. It was under those circumstances, in fact, that the significant difference in DIBELS scores arose.

Considering that both groups of students began at close to the same level of fluency (as identified by the DIBELS ORF score), we can further isolate the influence of the shared/paired reading format of materials being used and conclude that it did affect these students' progress. It cannot be isolated as the only influence but it certainly must be at least identified as a factor. Hiebert (2003) found in her research on first grade fluency that students reading in treatment texts containing some of the same text format as the intervention materials in our study made significant gains in fluency over their peers in the comparison condition. That seems to point further to the possibility that the intervention was a determining factor in the success of the students in our study.

Least discussed in comments from parents and teachers was the repeated reading practice recommended in the introductory directions in the front of each intervention book. The value of repeated reading, although known widely in educational circles, is not frequently understood or appreciated by many families. There are even teachers who have not yet learned of its contribution. Those facts are evidenced by the fact that a few parents (and one teacher) even complained when rereading the same text was suggested. Based on the success of the students in the experimental group, it is reasonable to expect that adding the component of rereading text would further aid fluency development and enhance the results.

Question #2:

In the same vein, does introducing materials in this format increase parental involvement with students' reading at home and positively improve their attitude about same (again, compared to current methods)?

Response:

Fifty-five percent (55%) of the teachers surveyed believed the *We Both Read* intervention materials introduced in this study were a very important aspect in improving parent involvement compared to the other materials they had been using. Another thirty-five percent (35%) said it was important. Fifty-one percent (51%) of the teachers indicated that the intervention was very important in increasing the amount of time parents read with their children (and other 28.6% labeled it as important) with the same comparison to materials they had used in the past or were currently using with their control groups. Both of these endorsements from a high percentage of teachers sets a positive tone for the possibility that the materials used in the intervention at least facilitated stronger reading at home habits. Parents' comments also lead us to believe that they felt more positive about their children's reading and their involvement in it as reflected in the comments from their survey. The number of families that specifically commented on the materials used in the intervention is key evidence of their impact.

Parents from the control group perceived that their children were reading more on their own but the data from the reading logs did not confirm that perception. In fact, whether looking at the entire group or the more specific subset of parents reading with their children at least 30 minutes a week, the reading logs revealed that these children were reading less on their own and with more inconsistency than the experimental group. This, again, reinforces the distinction between the materials used in the intervention with the experimental group versus those used in the control group.

The Reading Logs did confirm an increased pattern of children and parents reading together regularly among the experimental group. For 9 out of 10 weeks, children in the experimental group read more minutes than the control group (in sixth week both groups read initially the same average amount). When looking at the most consistent subset of students reading at least 30 minutes with their child, child/parent reading for the control group actually exceed that of the experimental group on average but the time between parent/child and independent reading was more balanced within the experimental group. This ratio between parent/child and independent reading time evidently contributed to the consistency with which children read. That consistency is an indicator of increased motivation on the part of both the parent and child.

This helps us understand an important distinction which goes beyond the time spent reading: even parents who were less engaged with their children and with school-related activities still seemed drawn to reading with their child by the intervention materials (as evidenced by the reading logs that were received). After the first week, in the majority

of weeks following in the study, the parent's choice to read with their child seemed evident, although not yet at the level of consistency that we saw with those in the subset.

In the case of parents already engaged in school related activities (as evidenced by the more consistent completion of logs), balance between parent/child and independent reading was more important since those parents were most likely already reading with their children. The tendencies for those children to be reading more on their own and less with parents changed over the course of the study and revealed the benefits of continuing to read with children even after they have gained an ability to read some text on their own. The intervention materials were distinctly different enough from the control group's materials (see criteria checklist) that they certainly played a role in facilitating these changes in behavior.

According to Hoover-Dempsey and Sandier (1995), parents who think their ability is sufficient in what their child needs assistance with are happy to offer that assistance. Karen Salinas, communications director for the Center on School, Family, and Community Partnerships at Johns Hopkins University, confirms that the majority of families do want to be involved:

Teachers perceive that families don't want to be involved when, in fact, families don't know how to be involved.

Using text with specific formats that support reading growth provides a level of expertise and confidence for families reading with their children at home. It also imbeds specific research-based strategies so parents can easily use them, without explicit training. The patterns identified through the reading log tie to the results of reading improvement among the students in this study, and robust research supporting the idea that parents reading with children and the volume of such reading are keys to improving reading skill (Caspé, M., Lopez, M.E., Wolos, C. 2006, Evans, et al 2003).

Data collected via parent and teacher surveys solidifies the theory that there was a more positive response to the materials used with the experimental group versus those used by the control group. If that response had been caused by the novelty of "new books", that might explain an initial positive response. However, positive responses continued as evidenced by the trends in the reading logs and comments appeared frequently in the parent and teacher post surveys. One teacher's comments about the *We Both Read* intervention materials exemplify common responses:

I had many positive comments from the parents about how much the students enjoyed the stories. The students could not wait to take them home and came back the next day telling me all about the story they read. I appreciate the fact that the parent and child both had an active part in the reading process.

Question #3

Finally, does this approach impact children's attitudes about reading and, if so, how? Does it influence the number of books read or amount of time spent reading? (again, compared to current methods).

Response:

Certainly, the response to the previous question has already helped shed light on this important question. Reading skills and motivation correlate with and influence one another over time (Guthrie, 2006). The answer to this final research question was less definitive since the subject of children's attitudes towards and motivation to read and connect with books remains so complex.

The Teacher Survey communicated to researchers that 77% of teachers believed the intervention was important or very important in influencing positive attitudes about reading among their students. The Parent Survey, especially answers to individual questions, reflected a gain for the experimental group from the parent's perspective of their child's reading attitudes. One of the greatest differences between scores of experimental and control group parents on a single question involved how their children's interest in reading had improved. Perhaps, at least in part, because of the ages of students, the Elementary Reading Attitude Survey (ERAS) instrument used to gauge student attitudes did not show a significant change in either the test or control group. Further investigation into use of this instrument is warranted.

The experimental group also showed a marked difference in the balance between parent/child reading together and independent reading. Not only was there a closer balance between the minutes used for each among the experimental group members who consistently kept reading logs, but there was a more consistency from week to week (refer to Figure 4.6). This higher level of consistency in minutes read correlated with higher DIBELS Oral Reading Fluency scores.

Research has shown that young children often read less than 10 minutes per day outside school and that positive attitudes and literacy habits are the foundation for early reading success (Snow, Burns, Griffin, 1998). Habits were certainly strengthened for the children in the experimental group of this study as evidenced by the balance reflected between parent/child and independent reading. Stanovich (1998) points out that, as a result of reading more extensively, readers grow in all the skills that contribute to fluency and in fluency itself.

The experimental group from week to week read with more consistency and maintained a closer balance between parent and child reading together and the child reading independently. It is important to ask, "If the overall reading volume was the same and in fact, the control group spent more time reading with an adult, why did they not test as more fluent readers?" The answer may lie in combining what Kuhn and Stahl (2003) have referred to as "adult assistance" (which both groups evidently did as reflected by

their average parent/child reading time) with the evidence from Drs. Morrow and Hiebert's studies.

Although both leveled readers and some materials from the curriculum contained elements identified in Dr. Hiebert's research as conducive to reading growth (and specifically to fluency development: a small number of unique words, a high percentage of the most frequently used words and often repeated critical words), the *We Both Read* intervention materials contained those elements plus a format that facilitated engaged reading with an adult or older sibling in additional ways. Through the markers on the pages that label adult and child reading, the application of bold print where the child hears and sees a new word first before she reads it herself on her pages, and the additional tips included in the front of each book, parents were specifically provided opportunities for vocabulary discussion, listening to a fluent model and experiencing a shared/paired reading experience. They were presented with concepts they believed they could help their child with in a format that was pleasant and interactive.

That in turn, clearly influenced the children in that group to read more consistently on their own and encouraged a more intrinsic desire to read. In the case of the control group, the inconsistencies appear to reflect that the motivation may have been extrinsic and so more unpredictable. The elements of intrinsic and extrinsic motivation are indubitably related tied to the balance in volume of reading. Stanovich (2000) explains it in this way: "As children have more rewarding reading experiences, they read more, and have more motivation to read, their fluency and vocabulary improves." This is a cyclical process with no definitive starting point but certainly it is reasonable to consider that the format of the intervention materials engaged both parents and children in a more active way, gave parents confidence that they could help their children and inspired students to then read more on their own. Herein lies a distinction that shows promise.

Chapter 6: Implications for Classroom Teachers & Future Research

This study informs teachers of specific criteria to use when selecting materials for at-home reading. It also opens the door to explore whether employing specific materials with specialized formats in effective parent involvement programs might impact student populations and their families, both those who already read with their children and those who do not. Considering the experience with this study, it is recommended that such initiatives begin at the first of the school year, rather than in the spring, to avoid some of the limitations associated with a spring semester implementation. The fact that families with students of higher risk for reading failure often need a strong support system to engage in reading with their children should also be taken into consideration when designing programs to include those families in their child's reading development.

Any single research study is only a snapshot, a glimpse of one group of subjects within a specific timeframe and certain conditions. Considering growth and engagement beyond this ten-week period with larger pools of more consistent participants or a series of more depth case studies could extend the implications of this research. Closer investigations into combining use of texts with effective formats with effective parental involvement techniques could prove quite valuable in addressing the reading skills and attitudes of all young children. It would also be meaningful to extend this study into a group of 2nd grade students, since further fluency growth is expected at this time. Taking the implications of this study further to define whether books with certain formats scaffold children toward more independent reading is also an important area for further research. Certainly, more study into the impact of at-home reading on a child's growing reading abilities and motivation to read independently (and whether continued reading together is beneficial) is warranted. As publishers translate more text in these formats into the primary reading language of ESL families, it would also be interesting to observe whether these same influences create positive change and growth in reading among those for whom English is not their first language. It should also be pointed out that this study did not examine what effect, if any, the intervention materials may have had on reading comprehension (although increased fluency does lead to increased comprehension). Additional research, that more specifically addresses comprehension, may be a valuable extension of this study.

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