The Effects of Fluency-Building Strategies on the Oral Reading Rates of First-Grade Students

Holly Walker
THE EFFECTS OF FLUENCY-BUILDING STRATEGIES
ON THE ORAL READING RATES OF FIRST-GRADE STUDENTS

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By
Holly E. Walker

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THE EFFECTS OF FLUENCY-BUILDING STRATEGIES ON THE ORAL READING RATES OF FIRST-GRADE STUDENTS

Approval

_____________________________________________, Chair
David Topper, Ed.D.
Associate Vice President, Administration & Finance
Shippensburg University

_____________________________________________, Member
Jane Johnston, Ed.D.
Director of Curriculum
Tuscarora Area School District

_____________________________________________, Member
Nikki C. Barnhart, Ed.D.
Retired Reading Recovery Teacher and Reading Specialist

Program Director
James E. Henderson, Ed.D.
Professor of Educational Leadership and
Director, Interdisciplinary Doctoral Program for Educational Leaders
Duquesne University School of Education
ABSTRACT

THE EFFECTS OF FLUENCY-BUILDING STRATEGIES ON THE ORAL READING RATES OF FIRST-GRADE STUDENTS

By

Holly E. Walker

December 2008

Dissertation Supervised by Dr. David A. Topper

The purpose of this study was to determine the effects of explicit fluency-building strategies on the oral reading rates of first-grade students. According to the National Reading Panel (2000) there are five essential components of reading instruction: phonemic awareness, phonics, fluency, vocabulary and comprehension. All components are needed to achieve the complex skill of reading. Due to the reciprocal nature of these skills pertaining to reading, a deficit in any reading component can cause difficulties in learning to read (O’Connor, 2007). Therefore, reading fluency is critical to proficiency in reading. Specifically, this study investigated whether explicit instruction in fluency-building strategies significantly increased the oral reading rates of first-grade students. The experimental group participated in explicit instruction of fluency strategies for 15-30 minutes a day, five days a week, for sixteen weeks. This treatment occurred within the
hours of the regular school day. The target population of this study involved 56 first-grade students from three multicultural elementary schools in a suburban-rural school district. The measure of the dependent variable, oral reading rate, was the Dynamic Indicators of Basic Early Literacy Skills (DIBELS). The Oral Reading Fluency (ORF) measure was administered twice during the course of this study: pre and post treatment. The scores of the DIBELS ORF were analyzed to determine the effect of explicit fluency-building strategies on the reading rates of first-grade students.

The results of this research study did not indicate a significant increase in the oral reading rates of the first-grade students who participated in explicit fluency-building instruction. Students in both the experimental and control groups experienced increases in their oral reading rates as measured on by the Oral Reading Fluency measure of the DIBELS. The results of this study generated no empirical evidence to support the implementation of explicit research-based fluency strategies. Therefore, the null hypothesis was retained.

In summary, the purpose for this dissertation topic was to investigate how fluency building strategies can be systematically implemented into reading instruction to increase the oral reading achievement rates of first-grade students. Further, this study provided opportunities for students to practice and assimilate fluency strategies.
DEDICATION

To Brayden Myles
~My beautiful biggie boy~
You are my inspiration.

A Child to Love

You can have your wealth and riches
   All the things so many seek,
   Position, power and success,
   The fame you long to keep.
You can earn as much as you wish,
   Reach a status high above,
   But none of these can equal
   Having one sweet child to love.

‘Tis the greatest gift from Heaven,
   Little arms to hold you tight,
   And a kiss so soft and gentle
   When you tuck him in at night.
   A million precious questions
   And each story often read,
   Two eyes so bright and smiling,
   And a darling tousled head,
God has never matched the goodness
   Of a trusting little face,
   Or a heart so full of laughter
   Spreading sunshine every place.

A child to hold and cuddle,
   ‘Tis a gift from God above,
   And the world is so much brighter
   When you have a child to love.
ACKNOWLEDGEMENTS

It is with tremendous, heart-filled gratitude that I acknowledge the many individuals who contributed to my academic pursuits.

Dr. David Topper, Dr. Jane Johnston and Dr. Nikki Barnhart guided me through every step of this process, provided constant encouragement and assistance as needed and genuinely cared about my success! I so appreciate their time and efforts!

My Northeastern Family was ever so gracious in accommodating me in this endeavor. Dr. Dennis Baughman, my mentor, who was always just a phone call away and never doubted my success. Mrs. Christine Snyder so willingly went above and beyond many, many times for my behalf. I truly enjoyed our “DIBELicious Days!” A special “Thank You” to Mrs. Jody Bunnell, Mr. Jeffrey Ketterman, Mrs. Jane Whalen and Mrs. Sue Zortman for their willingness to help me with the execution of my study. I could not have done this without the assistance of Mr. Edward Aubry. His patience and willingness to help guide me through the data analysis was invaluable!

Without the aid of my husband, Brent, and my mother, Darlene Oberlander, I would not have had the opportunity to realize my dream of earning my doctoral degree. Time after time, they willingly gave of themselves to provide me with time to research and write. Their support and encouragement, coupled with that of my father, Richard Oberlander, enabled me to continue on even when the road ahead seemed so long and dark. I am forever grateful for all that you have done to facilitate my accomplishment.

Finally, I would like to give praise to our Heavenly Father. It is through His love and strength that I am able to experience success.
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CHAPTER I

Introduction

The acquisition of reading skills is of paramount importance in an individual’s educational career. Being able to read and comprehend intelligently opens a multitude of avenues for one’s future endeavors. According to the National Reading Panel (2000), reading has been identified as a salient component for student success across curricular domains (Rasinski & Stevenson, 2005). Reading efficiently affords freedom of choice regarding future careers and occupations.

To read is defined as the use of graphic symbols (letters clustered into words) embedded in continuous text (Fountas & Pinnell, 1996). Learning to read is a complex process that involves a variety of skills and abilities (Sénéchal & LeFevre, 2002). Despite what many may assume, learning to read is far more complex than sounding out words. While it is true that sounding out words is one strategy often utilized in learning to read, there are many others that children must have in their repertoires in order to read proficiently. There are two complex cognitive tasks involved in learning to read: decoding recognizable print and making meaning of recognized words (National Reading Panel, 2000). In order to read a word aloud, numerous cognitive processes, relationships and connections must be executed in less than a quarter of a second (Adams, 1990).

Therefore, effective beginning literacy instruction encompassing the essential components of reading is critical to future success. According to the National Reading Panel (2000) there are five essential components of reading instruction: phonemic awareness, phonics, fluency, vocabulary and comprehension.
Historical Background

Over the past two decades, there has been great discourse and debate regarding the teaching of reading (Fountas & Pinnell, 1996). The traditionally accepted manner of teaching literacy was through explicit phonetic instruction. Then in the 1990s, there was a new philosophy introduced which embedded phonetic instruction into relevant, meaningful literature experiences. Thus the whole language movement was born.

Today, most educators of primary students agree a comprehensive literacy approach, which incorporates critical elements from each philosophy, is the most effective teaching method to reach the student population (Snow, Burns & Griffin, 1998). Comprehensive literacy is the integration of explicit skill instruction and authentic reading/writing activities. The extensive skill instruction includes modeling expected behaviors and explanation through the utilization of mini-lessons (Metsala, 1997).

Today, teachers are most likely implementing a comprehensive reading approach which incorporates relevant, meaningful literacy activities and systematic phonetic instruction (Bursuck, Munk, Nelson & Curran, 2002).

Acquisition of Reading

It is essential for beginning reading instruction to include the following components in order to be most effective in developing skilled readers: phonemic awareness and decoding skills, fluency in word recognition and text processing, construction of meaning, vocabulary, spelling, and writing skills (Foorman & Torgesen, 2001). Phonemic awareness and letter knowledge are good predictors of students’ ease in acquiring word accuracy and fluency (Wagner, Torgesen, Rashotte, Hecht, Barker, Burgess, et al., 1997). Furthermore, the National Reading Panel (2000) acknowledged
word decoding and oral fluency as indicators of effective early reading programs (Rasinski & Stevenson, 2005). Early and emergent readers must receive instruction in the various components of reading in order to gain basic knowledge upon which more complex skills may flourish. The stages of reading development are interdependent (Chall, 1979). Confirmation and fluency follows the first stage of reading development, decoding (Chall, 1996). In stage two, children are practicing automaticity and the conversational rhythm of reading since having mastered prereading and early literacy behaviors in stage one (Chall, 1996). Ehri (1995, 1998) has researched and developed a theory of fluency development in children. There are several elements of early literacy that contribute to the development of reading fluency. Ehri identified five stages of reading development in children. In the first stage, prealphabetic, children have no comprehension of the sound/symbol relationship of language. Partial alphabetic, the second stage, is characterized by an awareness of the sound/symbol relationship. However, there is minimal ability to apply this knowledge. Focus is on initial and final letters and sounds during this stage. In the third stage, fully alphabetic, children possess the ability to apply their knowledge of the relationship between sounds and symbols. Words are recognized by sight after several exposures to print. Consolidated alphabetic stage, the fourth stage of reading development, is characterized by the recognition of whole words. Children are able to store letter patterns and apply this knowledge to unknown words. The final stage of Ehri’s theory of reading development is the automatic stage. In this stage, the recognition of words is automatic. Further, children employ multiple strategies to decode unfamiliar words in print. Ehri’s theory focuses on
decoding aspects and lends understanding to elements necessary for fluency development.

Learning to read is not a finite destination but an ever-evolving process. Beginning readers encounter a myriad of challenges as they learn to decode a written language. Concepts about print, one-to-one correspondence and sound/symbol relationships are all essential skills to be mastered prior to achieving proficient literacy skills.

Statement of Problem

Becoming a fluent reader requires substantial practice over a considerable amount of time (National Reading Panel, 2000). According to the National Reading Panel there are five essential components of reading instruction: phonemic awareness, phonics, fluency, vocabulary and comprehension. These elements are critically important to students who are acquiring and refining beginning reading skills. While phonemic awareness, phonics, vocabulary and comprehension have received much attention in classroom instruction, until recently fluency had been neglected as a critical component of reading instruction (Kamhi, 2003). Comprehension is linked to reading fluency. Disfluent, word-by-word reading leads to decreased comprehension (Rasinski, 2000). Fluent reading enhances comprehension by allowing the reader to move through the text quickly while maintaining the meaning (Fuchs, Fuchs, Hosp & Jenkins, 2001). Therefore, reading fluency warrants an equal amount of emphasis and attention within the communication arts curricula.
Importance of Reading Fluency

The term fluency is derived from the Latin word *fluens* which means “to flow” (McCabe, 2004). Fluency is defined as, “the ability to read text quickly, accurately and with proper expression” (National Reading Panel, 2000, p.3-5). Researchers Rasinski and Stevenson describe fluent text decoding as, “the skill most associated with beginning reading instruction” (2005, p. 117). Automatic word recognition provides opportunity for sufficient mental resources to be available for chunking and grouping for understanding meaning (National Reading Panel, 2000). Because fluency builds a bridge between word-by-word decoding and comprehension, it is a critical component of reading.

Fluency requires proficient use of punctuation and knowledge of where to position emphasis and pause in order to comprehend (National Reading Panel, 2000). Proficient reading requires more complex skills than word-by-word reading. Contextual reading is a result of practicing reading words in a meaningful context (National Reading Panel, 2000). Fundamental problems for students struggling to learn to read are sight word identification, automatic word decoding and rapid reading of phrases and sentences (Chard, Vaughn, & Tyler, 2002). Students who are able to recognize words automatically, read aloud effortlessly and with expression without having to focus on decoding are able to concentrate on understanding and forming meaning of the text (Gomez-Schanne, 2006). Multiple exposures to written text aids in the attainment of fluency skills (National Institute for Literacy, 2006). Fluency develops with consistent practice over repeated exposures. Fluent readers are able to expend less energy on the decoding process and have the opportunity to focus on comprehension of the text. Thus, reading fluency leads to increased proficiency.
During the decoding process, individuals receive information from various sources in order to read the text. The sources of information are categorized into three cueing systems: semantic, syntactic and graphophonic information. Semantic cueing is utilizing meaning during the reading of the text. Often, meaning is derived from picture clues, personal experiences and background knowledge. Syntactic cueing is based upon the structure of the text. The students utilize their knowledge to make sense of the text. Children have been exposed to oral language for years prior to their formal beginning reading experiences. They apply this knowledge of language to the written information they are attempting to decode and interpret. Finally, graphophonic cueing systems provide visual information regarding letters and sounds. Utilizing knowledge of how written language is organized on a page is beneficial for beginning readers. Aspects such as letters together make words, spaces are needed between words and punctuation ends complete thoughts are examples of graphophonic cueing. The three cueing systems are utilized in an integrated way to make meaning of texts.

Fluency and Comprehension

It is not only important for children to decode words automatically; children need to group words into meaningful chunks and incorporate expression in order to convey meaning of the text (Rasinski, 2003). Comprehension is critical to fluency, as it is expressed through appropriately expressive reading (Rasinski, 2003). Moreover, fluency is critical to achieving high levels of reading achievement (Pikulski, 2006). There is a causal link between disfluent reading and poor comprehension (Rasinski, 2000). Students who find success in reading tend to read in greater quantities than students who experience less success (Pearson, 1983). Therefore, improving reading
fluency rates will increase the quantity of reading done by students, which will impact comprehension levels (Rasinski, 2000).

The ability to orally decode words without conscious effort and to read text with expressiveness leads to increased comprehension (Fuchs, Fuchs, Hosp, & Jenkins, 2001). Decreased attention to word decoding allocates increased mental capacity for comprehension (Fuchs et al., 2001). Therefore, oral reading fluency is representative of overall reading expertise and development.

LaBerge and Samuels (1979) conducted a study in which students with learning disabilities read short passages orally. With several repeated readings, the students showed improvements in accuracy, rate of reading and comprehension. This study supported their theory of automatic information processing. The results indicate assimilation of fluency skills. Fewer repeated readings are necessary on subsequent readings to achieve the established goals (Samuels, 1997). The theory of automaticity involves the processing of complex information that typically requires extended learning time before it can be executed with minimal cognitive effort (National Reading Panel, 2000). The theory of automaticity assumes that the human brain has limited capacity for performing challenging tasks. When energy is exerted to perform a difficult task, such as reading words in a text, mental functioning is slowed as a result of the effort being put forth. Finally, this theory assumes that with repeated practice of the complex skill, less energy will be expended and mental functioning will gain momentum. Thus, energy and effort may be directed to other tasks simultaneously, such as comprehension (Rasinski et al., 2006). Disfluent reading is characterized by slow, labored reading lacking in expression (Rasinski, 2000). Students who experience reading difficulties belabor the
letter-sound connection and expend extensive energy decoding the written text. The limited brain capacity available is consumed by the energy of decoding. Therefore, there is minimal mental energy remaining to interpret the meaning of the text. Comprehension is lost. Less-skilled readers are characterized by letter-by-letter decoding of words whereas more skilled readers process words holistically (Shanahan, 2006).

For children deemed at-risk to experience difficulties becoming fluent, identification and participation in a prevention program can prevent reading difficulties (Snow, Burns & Griffin, 1998). All children must learn the same foundational knowledge to become effective readers. Children who are at risk for reading failure require more time to learn these necessary objectives. More intensive and explicit instruction in fundamental concepts is required to aid in the acquisition of skills. Skillful and consistent instruction of the essential components of reading will provide the increased intensity required by children with difficulties (Foorman & Torgesen, 2001). As a result of improved skills, there will be less cognitive effort dedicated to word-by-word decoding. Thus, the rate of reading will increase. Moreover, the reader will gain the ability to effortlessly read through the written text and be able to retain the meaning of the passage.

While learning to read is a challenging task for all students, children who have difficulties acquiring fluency may require more intensive, explicit, supportive and comprehensive instruction (Foorman & Torgesen, 2001). Furthermore, students with perceived deficiencies in reading skills such as phonemic awareness and decoding need instruction filled with much repetition in order to attain knowledge (Foorman & Torgesen, 2001). By experiencing systematic instruction in the essential components of
reading these students are more likely to achieve academic gain. Fluency skills are a prerequisite to reading comprehension. According to Kuhn & Stahl (2000), fluency instruction may be most beneficial to students who are in Chall’s second stage of reading, confirmation and fluency. Significant comprehension difficulties are likely to develop if students fail to progress from word-by-word decoding to fluent reading (Stahl & Kuhn, 2002).

Children’s emerging literacy skills are good predictors of their reading success in the early stages (Senechal & LeFevre, 2002). The goal for all children is to achieve independent silent reading (Fountas & Pinnell, 1996). The transfer of oral reading fluency skills to silent reading skills is the ultimate goal of reading (Hiebert, 2006). Reading consists of independent silent processing of text coupled with meaning comprehension. Word recognition and fluency are essential components of comprehension, and therefore to successful reading (Rasinski, 2003).

Purpose of Research Study

The purpose for this dissertation topic is to investigate how fluency building strategies can be systematically implemented into reading instruction to increase the oral reading achievement rates of first-grade students. Further, this study will provide opportunities for students to practice and assimilate the fluency strategies.

Research Question

The research question to be addressed in this study is: Will there be an increase in the oral reading rates of first-grade students who receive direct instruction in fluency-building strategies as compared to those first-grade students who do not receive direct instruction on fluency-building strategies?
Hypothesis
The research hypothesis proposed in this study is: There will be a statistically significant increase in the oral reading achievement rates of first-grade students who have received explicit instruction in fluency-building strategies, as compared to the oral reading achievement levels of those children who did not receive explicit instruction in fluency-building strategies.

Null Hypothesis
There will be no statistically significant increase in the oral reading achievement rates of first-grade students who have received explicit instruction in fluency-building strategies, as compared to the oral reading achievement levels of those children who did not receive explicit instruction in fluency-building strategies.

Description of Variables
The independent variable for this study is the type of reading strategy instruction. The experimental classrooms will receive direct, explicit and systematic instruction in fluency-building strategies. Both control classrooms will continue to provide reading fluency instruction as has been traditional as mandated by the curriculum of the host district.

The dependent variable for this study is the oral reading achievement rates of the first-grade students as measured by the Dynamic Indicators of Basic Early Literacy Skills (6th Edition).
Operational Definitions

Assisted reading: Method of reading in which a student reads aloud while a more-abled reader follows along silently or reading aloud the same text (Fountas & Pinnell, 2001).

Automaticity: The ability to read fluently without expending great effort/attention to the recognition of words (Samuels, 1974).

CBM: Curriculum Based Measurement; on-going measurement to assess reading development; features counting the number of correct words a student reads aloud from text in one minute; allows for diagnostic analysis of performance (Deno, 1985).

Choral reading: Interpretive reading of text, usually by a group of voices (Fountas & Pinnell, 2006).

Comprehensive literacy: Comprehensive literacy is the integration of explicit skill instruction and authentic reading/writing activities (Graves & Graves, 1994).

Cueing systems: Information sources that allow independent reading to occur when utilizing all three systems: syntactic, semantic and graphophonic (Clay, 1993).

DIBELS: Dynamic Indicators of Basic Early Literacy Skills; a screener for academic progress (Good & Kaminski, 2002).
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<td>Fluency:</td>
<td>The ability to read smoothly, easily and expressively (National Reading Panel, 2000).</td>
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<td>Ineffective Reading:</td>
<td>Word-by-word reading; decoding of text is not automatic. (Rasinski, 2000).</td>
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<td>Metacognition:</td>
<td>Awareness and understanding of one’s cognitive processes (Brown, 1980).</td>
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<td>Model of Gradual Release:</td>
<td>Method of instruction in which the teacher gradually releases ownership of learning activities to the students (Pearson &amp; Gallagher, 1983).</td>
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<td>One-to-One</td>
<td>A prerequisite for reading; the ability to point to and identify individual words (Clay, 1993).</td>
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<td>Partner reading:</td>
<td>Method of reading in which partners read together to build fluency and comprehension (Fountas &amp; Pinnell, 2006).</td>
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<td>Phonemic awareness:</td>
<td>Ability to manipulate individual sounds in words as in /c/ /a/ /n/ (National Reading Panel, 2000).</td>
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<td>Phonemic isolation:</td>
<td>Ability to recognize the sound-symbol relationship of letters as in p sounds like /p/ (National Reading Panel, 2000).</td>
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<td>Read-aloud:</td>
<td>Literary technique in which teachers read texts orally to students (Fountas &amp; Pinnell, 2006).</td>
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<td>Reader’s Theatre:</td>
<td>The performance of texts that have been adapted into scripts; promotes fluency and comprehension (Carrick, 2006).</td>
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<td>Reading:</td>
<td>Cognitive process of understanding a written linguistic message (Adams, 1990).</td>
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<tr>
<td>Reading accuracy:</td>
<td>Ability to accurately pronounce words while reading text. Accuracy is measured as the number of words read correctly. Accuracy is one aspect of fluency (Shanahan 2006).</td>
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<td>Reading rate:</td>
<td>The speed of reading, usually measured as the number of words read per minute: WPM (Rasinski, 2003).</td>
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<td>Repeated reading:</td>
<td>A scientifically based reading intervention used to improve oral reading fluency in which a student reads passages several times until a satisfactory rate of fluency is achieved (Samuels, 1997).</td>
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<td>Screening measure:</td>
<td>An assessment utilized to predict academic achievement and establish a baseline (Klotz &amp; Canter, 2006)</td>
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<td>Sight word:</td>
<td>Words that are recognized automatically “on sight” (Ehri, 1998).</td>
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<tr>
<td>Supported reading:</td>
<td>Method of reading in which a competent reader provides scaffolding to a less-abled reader (Rasinski, 2003).</td>
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WCPM: Words correct per minute; calculated by dividing the number of words correct by the expected goal (Fountas & Pinnell, 2006).
CHAPTER II
LITERATURE REVIEWED

Overview

The 21st Century is an era of increasing concern about the quality of education in America. There are ever-increasing goals for academic performance. State and national funding for public education is dependent upon student achievement on standardized tests. As a result, states are taking a greater role in monitoring and maintaining academic standards (Cotton & Wikelund, 1989). Through state and federal legislation, educators are being held increasingly more accountable for student achievement, primarily in the areas of reading and mathematics achievement. At the forefront of academic accountability legislation is the No Child Left Behind Act (NCLB) of 2001. NCLB is a federal initiative aimed at improving education. This law reauthorized the Elementary and Secondary Education Act (ESEA), the principal federal law affecting public education (USDOE, 2003). Institutions of education are held accountable for the academic success of their students. States are aggressively pursuing achievement of NCLB goals. Under NCLB, states are required to measure every student’s progress in reading and mathematics in each of grades 3 through 8 and a minimum of one time during grades 10 through 12 (USDOE, 2003). Monitoring the reading progress of children as they progress through first grade is of importance as a result of the NCLB legislation (Compton, Fuchs & Fuchs, 2004).

The state of reading achievement for America’s youth is dismal according to the National Assessment of Educational Progress. A study by Pinnell et al. determined that of a nationally representative sample of fourth graders, 44% of students were disfluent in
their reading even with instructional support (1995). It is necessary to raise the bar for
the reading achievement of the nation’s children (Bursuck et al., 2002). Of the nation’s
fourth-graders, only 32% performed at a proficient or advanced level (USDOE, 2003).
According to the Pennsylvania Department of Education, in 2006, 31% of third graders
and 31.9% of fourth graders in Pennsylvania failed to read at a proficient level on the
Pennsylvania System of School Assessment (PSSA) (PDE, Sept. 2006). Failure to read
during the elementary school years has long-term consequences for children that include
lack of self-confidence and motivation to learn, frustration leading to problem behaviors,
dropping out of school and increased likelihood of engaging in delinquent acts (Musti-
Rao & Cartledge, 2004). Furthermore, of the children who are reading below grade level
at the end of first grade, 88% will remain below grade level through the end of fourth
grade (Juel, 1988). Because of the importance of acquiring reading skills, schools are
increasing efforts to ensure that all children are provided opportunities to succeed.
According to NCLB (2001), all students are to attain a proficient reading level by 2014.
Therefore, becoming a fluent reader is of greater importance (Samuels, 2006).

The academic achievement of students is in the forefront of the nation’s social
consciousness. Thus, educators are searching for effective methods for increasing
student achievement levels. With the increased accountability and the academic push
that is beginning to permeate both primary and intermediate grades, it is essential that
educators provide maximum effective learning opportunities within the school day.
Bursuck, Munk, Nelson and Curran (2002) investigated teacher knowledge and
perceptions of research-based best practices regarding effective reading instruction for
primary students. The results indicate primary teachers favor more explicit instruction of
reading components for students deemed at-risk. Moreover, most teachers who participated in the study believe that the majority of reading difficulties could be prevented by early intervention.

The Great Debate

The teaching of beginning reading has been controversial throughout the course of history. The controversy involves whether the teaching of sound-symbol correspondence should be in the form of explicit systematic instruction or embedded within context (National Reading Panel, 2000). In 1955, Flesch published Why Johnny Can't Read to address the lack of reading comprehension at the time (National Reading Panel, 2000). This book became instrumental in the development of new phonics programs (National Reading Panel, 2000). Then in 1967, Chall published an analysis to review beginning reading instructional practice (National Reading Panel, 2000). Chall’s works concluded systematic phonetic instruction is more effective in increasing reading achievement than approaches that are less systematic (National Reading Panel, 2000). Systematic phonics, coupled with meaningful reading, was found to be a valuable component of beginning reading instruction (Adams, 1990). This finding is still applicable and cited in today’s research on reading.

During the 1990s, the whole language movement took the forefront in beginning reading instruction. Whole language advocates espoused the teaching of phonics within the context of authentic, meaningful literary activities (National Reading Panel, 2000). Vowel instruction was not included to a large extent, if at all, in the whole language methodology (Stahl, Duffy-Hester & Stahl, 1998).
Essential Elements of Reading Instruction

At the request of Congress, the National Reading Panel convened in 1997 to assess research-based knowledge utilized to teach children to read (National Reading Panel, 2000). Theorists, researchers and practitioners in the field of reading conducted a meta-analysis of scientific reading studies to determine the effectiveness of various approaches to teaching beginning reading. The representatives elected to include five essential aspects of reading in their reports: phonemic awareness, phonics, fluency, vocabulary and comprehension (National Reading Panel, 2000).

The first aspect of comprehensive reading programs the National Reading Panel investigated was phonemic awareness. Phonemic awareness is knowledge and utilization of phonemes, the smallest units of spoken language (National Reading Panel, 2000). A study by Share, Jorm, Maclean & Matthews concluded phonemic awareness and letter knowledge are the best predictors of successful beginning reading (1984). Further, the investigation determined phonemic awareness instruction aided students in reading known words, new words and nonsense words (2000).

The experts examined 52 studies to determine the impact of phonemic awareness on reading acquisition. Results from the National Reading Panel’s meta-analysis concluded the teaching of phonemic awareness is effective in improving manipulation of phonemes (2000). Two key approaches to teaching phonemic awareness developed as a result of the inquiry. The teaching of sound segmentation and blending and the manipulation of phonemes are most beneficial in terms of reading achievement (National Reading Panel, 2000).
Phonics is the teaching of sound-symbol relationships. Application of this knowledge is critical to children having the ability to decode unfamiliar words and recognize familiar words (National Reading Panel, 2000). The teaching of systematic phonics is an important aspect of a balanced, comprehensive reading program because knowledge of the alphabetic code aids in being able to read written words, whether in isolation or in context (National Reading Panel, 2000).

After conducting a rigorous screening process, the group analyzed 38 research studies to ascertain the effectiveness of phonetic instruction. Results from the meta-analysis support the notion systematic phonics instruction contributes more significantly to beginning reading growth than unsystematic or no phonetic instruction (National Reading Panel, 2000). Further, it was concluded systematic phonics instruction aids in helping children apply their knowledge of the alphabetic code and in preventing reading difficulties (National Reading Panel, 2000).

The third aspect of reading upon which the National Reading Panel focused their meta-analysis was fluency. Reading fluency is defined, “as the ability to read text quickly, accurately, and with proper expression” (National Reading Panel, 2000, p.3-5). Fountas and Pinnell state, “Fluency is a key characteristic of proficient literacy” (2006, p.31). Children need to identify and read words automatically in context in order to formulate meaning.

After analyzing 14 studies, the results indicate supported repeated oral reading practices lead to reading improvements (National Reading Panel, 2000). Moreover, guided oral reading practices yielded positive effects in the areas of reading accuracy, reading fluency and reading comprehension (National Reading Panel, 2000). According
to the National Reading Panel, “Repeated reading and other guided oral reading procedures have clearly been shown to improve fluency and overall reading achievement” (2000). The findings provide evidence for incorporating fluency instruction in a comprehensive reading program (National Reading Panel, 2000).

The fourth essential aspect of comprehensive reading programs is vocabulary. Vocabulary or word knowledge is the bridge from oral reading to written text. Vocabulary entails individual word units while comprehension addresses the construction of meaning from groups of words (National Reading Panel, 2000).

Results of a meta-analysis conducted by Stahl & Fairbanks (1986) indicate reading vocabulary is essential to comprehension; therefore, instruction of vocabulary should be a component of a comprehensive reading program. Further, the inquiry found repetition and multiple exposures are beneficial in fostering reading comprehension (National Reading Panel, 2000). A study by Senechal (1997) found the rereading of texts garners increases in vocabulary. Limited vocabularies were found to play a key role in the achievement gap between students from varied socio-economic backgrounds (Biemiller, 1999). The experts recommend the making of connections in order to facilitate the learning of vocabulary (National Reading Panel, 2000). Memories, experiences, emotions and culture play a significant role in students’ oral language (Fountas & Pinnell, 2006). The activation of prior and background knowledge enables children to learn new concepts more easily.

Comprehension is the last essential aspect of reading examined by the National Reading Panel. Research has established reading comprehension is crucial to not only academic learning, but life-long learning (Durkin, 1993). The construction of meaning
occurs during the cognitive processing while reading written text (Durkin, 1993). Fountas and Pinnell describe comprehension as, “the thinking readers do before, during and after reading” (2006).

Conclusions from the National Reading Panel’s examination of effective approaches to teaching reading support instruction of comprehension strategies can motivate students to employ their knowledge while reading independently (2000).

Traditionally, phonemic awareness, phonics, vocabulary and comprehension have been addressed in beginning literacy instruction. The concept of fluency instruction and its importance in the achievement of reading proficiency is emerging in current research.

Because reading fluency provides an avenue to move from word-by-word decoding to phrasing meaningful chunks, it is critical to reading achievement. Comprehension is fostered by explicit instruction, individual and interactive reading (Snow, Burns & Griffin, 1998). Proficient reading requires the incorporation of five components: phonemic awareness, phonics, vocabulary, comprehension and fluency (NCLB, 2001). All components are needed to achieve the complex skill of reading. Due to the reciprocal nature of these skills pertaining to reading, a deficit in any reading component can cause difficulties in learning to read (O’Connor, 2007). Therefore, reading fluency is critical to proficiency in reading.

Explicit Instruction

A deficiency in fluency is a significant contributor to reading difficulties (Rasinski & Padak, 1998). Fuchs, Fuchs, Hosp & Jenkins (2001) support this assertion. Their research posits the notion of reading fluency representing the dynamic nature of reading. A reader must translate letters into sounds, which in turn must be unified into
whole units of words. Words must be then be processed into meaningful connections within and among sentences while accessing and applying prior knowledge. Finally, readers need to make inferences from the text to supply missing information (Fuchs, et. al, 2001). Beginning readers lack automaticity and must attend to individual letters and chunks in words (Samuels, 1997). Expending great effort to decode individual words decreases the likelihood of recalling the words and phrases prior to the decoding pause (Adams, 1990). Oral reading fluency illustrates the complex cognitive process called reading.

The incorporation of systematic fluency instruction and explicit application time will aid students in the acquisition of proficient reading levels. Foorman & Torgesen (2001) support the notion of providing more instructional time for students who are at risk for reading failure. This study is interested in the observable aspects of fluency, such as reading words accurately, appropriate speed, expression and phrasing. These aspects are easy for educators to observe, measure and monitor for informed development of effective instructional programs (Rasinski in Samuels and Farstrup, 2006). Moreover, Rasinski states, “comprehension requires the fluent mastery of the surface-level aspects of reading” (Samuels & Farstrup, 2006, p. 18). When speed is the emphasis, not accuracy, students experience increased fluency (Samuels, 1997). Students exhibit anxiety, which leads to a decreased reading rate, when accuracy is the focus (Samuels, 1997). Therefore, speed of reading, not accuracy, leads to increased fluency (Samuels, 1997). Fountas & Pinnell (2006) indicate six aspects of fluency to be emphasized during the teaching of reading. Rate, pausing, phrasing, stress, intonation and integration are
components of fluency that teachers may provide prompting to students in order to aid students in making their reading “sound like talking” (Fountas & Pinnell, 2006).

Rasinski and Padak (1994) reported the lack of systematic integration of fluency strategies into a traditional basal system. Their study investigated the implementation of fluency development lessons on second graders. The results indicate greater gains in reading achievement were seen in the experimental group who received explicit reading fluency development lessons (FDL). The gains were compared with similar students who received varying forms of reading instruction. Both teachers and students reported the FDL as enjoyable components of the reading instruction program. Rasinski and Padak’s (1994) findings support the intent of this researcher’s study.

Until recently, fluency instruction has been largely overlooked as a critical reading component (Rasinski, Blachowicz, & Lems, 2006). The oversight may have been a result of varying perceptions of the definition and measurement of fluency. Just as reading development is a dynamic, so is the concept of reading fluency. This may be due to various opinions regarding the definition and measurement of fluency (Samuels, 2006). While some believe fluency is simply the ability to read quickly, others believe that true fluency is the ability to read and comprehend simultaneously (Samuels, 2006). Because of the varying definitions of fluency, measuring this skill became a source of debate as well. Fluency can be assessed by calculating the number of words read correctly per minute. This measure is called the reading rate. To measure the rate of reading, the utilization of a simple mathematical formula determines the total number of words read correctly in a specific timeframe. Fluency assessment should be brief as to not take away instructional time (Rasinski, personal communication, 12/11/06).
minute reading probe provides a snapshot of word recognition development. Oral reading directly measures word recognition skills and fluency, which, in turn indirectly measures comprehension (Chard, Pikulski, & McDonagh, 2006).

Researchers O’Connor and Swanson, from the University of California, have been conducting a multi-year project that investigates methods for improving reading fluency and comprehension (2007). The participants are 160 students divided between grades two and four. The project is focused on the effects of repeated reading, text difficulty and amount of time spent practicing. At the conclusion of this study, the researchers will have data to support the relationship between fluency and comprehension and evidence of an effective reading intervention.

Stahl et al. conducted a study in which a second grade basal reading program was reorganized to accelerate reading achievement (1997). The teachers in the study read aloud a passage and engaged students in discussion and comprehension activities. The 230 participants then took the passage home to read aloud to parents. Finally, the students took part in partner-reading the passage. The structure allowed for the reading and rereading of the passage. Therefore, comprehension was enhanced. The results of this study indicated the highest gains for students who entered second grade reading at a primer level and provide further support for fluency instruction as a prerequisite for comprehension.

In a recent study, Stahl’s (2005) research reiterates the necessity for additional fluency instruction studies. Over the course of two years, Stahl implemented a fluency-oriented reading instruction program to 125 second grade students. The goal of the study was to increase reading fluency while supporting comprehension. Stahl and the
participating teachers redesigned the basal reading lessons to promote fluency. Further, students were able to select reading texts on their own and were encouraged to read at home. The participants made greater than expected gains in reading achievement. The students who benefited the most from this study were those who entered second grade reading at a primer level or higher. The results indicate that restructuring traditional reading lessons to address fluency benefits students’ reading abilities. Stahl’s study provides further support for this researcher’s study.

Rasinski and Stevenson (2005) conducted a fluency-based home involvement program. The intent was to determine the effects of the program on the reading achievement of young children. The results indicate the parental component of this program enabled first-graders deemed at-risk to gain reading skills. Consequently, Rasinski and Stevenson’s study provides further evidence to support the need for more research in the area of reading fluency as a prerequisite for comprehension.

There are three main components to fluency (Gomez-Schanne, 2006). Accuracy (also known as automaticity) refers to the ability to read text. Rate is the speed of reading. The third component of fluency is prosody. This is commonly known as “reading with feeling.” Prosody is the stress and intonation of reading. Teachers of primary students need to possess an awareness of all three components of fluency in order to implement fluency instruction (Gomez-Schanne, 2006). First-grade students are considered fluent readers if their correct words per minute scores is 53 (Hasbrouck & Tindal, 2005).
Due to the insight of recent research regarding the lack of fluency instruction, this study will focus on the implementation of explicit fluency strategies. The application of the fluency strategies will be in the form of oral reading techniques.

**Oral Reading and Fluency**

Recent research indicates oral reading should be an integral component of reading instruction in both elementary and middle school classrooms (Rasinski, 2003). Rasinski outlines seven key rationales for oral reading to be included in reading instruction. First, oral reading provides enjoyment. There is the opportunity to create pleasant memories of reading during oral reading. Second, there is an authentic necessity for students to possess the ability to read orally. Giving speeches, reporting news, sharing jokes, calling cheers, reciting poetry and performing scripts are a few examples of the daily application of oral reading. Third, oral reading fosters self-esteem. Repeated exposure to texts provides practice opportunities to aid in experiencing success. Fourth, there is a sense of community among classmates when participating in oral reading. It aids in the development of the connection between reader and audience. Fifth, oral reading exemplifies the integrated nature of reading and writing. Students are able to visualize the connection between oral and written language. Sixth, oral reading improves decoding skills through multisensory experiences. Students are able to see, hear and speak words while participating in oral reading. Lastly, oral reading builds fluency. Students’ sight word and phrasing vocabularies are enhanced by allowing for more accurate, expressive reading (Rasinski, 2003).

A number of different instructional approaches have been utilized to improve children’s fluency. The development of fluent reading habits does not require special
materials or equipment (National Reading Panel, 2000). Rasinski details four approaches for incorporating oral reading into reading instruction to develop fluency (2003). Read-alouds, supported reading, repeated reading and performance reading are methods for providing students opportunities to engage in oral reading to increase fluency. Read-alouds increase vocabulary and comprehension by exposing students to more sophisticated language and plots than those the student is capable of reading independently. Fluency is another benefit of read-alouds. Students are exposed to proper expression, phrasing and rate of reading by listening to a more-abled reader. Further, read-alouds serve as motivation for continued reading (Rasinski, 2003).

Another method for incorporating oral reading into reading instruction is supported reading. This method is learning by doing. More-capable readers provide scaffolding, which allows students to venture beyond their individual reading capabilities. Echo reading, choral reading, paired reading and buddy reading are several strategies that provide supported reading. Paired reading is the coupling of one more proficient reader and one less proficient reader (Topping, 1989). The more proficient reader provides feedback on the other’s oral reading. Partners are able to read texts several times aloud to a peer. The partner offers suggestions for improving reading. Finally, echo reading happens when a fluent reader reads a section of text aloud and a less fluent reader echoes the reading. In this manner, students are able to hear and mimic fluent reading (Topping, 1989).

A third method for implementing oral reading into reading fluency instruction is repeated reading. Repeated reading was developed by Samuels (1979) as a way to transform the theory of automaticity (LaBerge & Samuels, 1979) into a practical
instructional approach. This approach emphasizes rereading a short story selection multiple times until a satisfactory level of fluency is achieved (Samuels, 1997). By participating in repeated reading, students are able to apply learned skills. This method is beneficial for struggling readers. Repeated reading aids in memory recall, improves comprehension and questioning skills, increases the rate of reading and encourages phrasing as opposed to word-by-word reading. Repeated reading is multiple exposures to the same text. Research indicates four exposures to the same text allow for maximum fluency gain (O’Shea, Sindelar, & O’Shea, 1985). Radio reading, mumble reading and cooperative repeated reading are strategies for utilizing repeated reading within the classroom. This approach allows for multiple exposures, which are necessary for automaticity (Samuels, 1997). Repeated reading allows students to move from word-by-word reading and gain proficiency in phrasing, which allows for greater comprehension of texts. This strategic reading strategy was developed to improve fluency and comprehension (Therrien, 2004). Therefore, rereading leads to increased fluency which influences comprehension of text (Samuels, 1997).

Finally, performance reading is a technique for engaging normally developing and advanced readers in oral reading. Because these readers do not need additional exposure to memory recall and rate of reading, performance reading provides authentic reading practice that requires repeated reading (Martinez, Roser, & Strecker, 1999). In addition, it is a motivating and engaging instructional technique for these readers. Student-led read-alouds, such as radio reading, book talks, book buddies and recorded books, are one way to incorporate performance reading. Reader’s Theatre and reading and performing poetry are two additional techniques for incorporating performance reading into reading
instruction (Pressley, Gaskins, & Fingeret, 2006). Reader’s Theatre is an interactive way for students to practice a text repeatedly for a purpose. Further, the development of fluency is fostered as a result of students reading the play scripts during the repeated readings (Johnson & Lewis, 1990).

Therrien (2004) conducted a meta-analysis of eighteen studies published between 1997 and 2001 which consisted of students aged 5 to 18 years old with learning disabilities. Participants engaged in reading intervention strategies for an average of 36 sessions. The results of this meta-analysis indicate repeated reading to be an effective strategy for improving overall fluency and meaning construction for both students with and without reading disabilities.

Martinez, Roser, and Strecker (1999) implemented an instructional program to incorporate Reader’s Theatre daily for 30 minutes for ten weeks. The participants were two second grade classes in a rural school district. The researchers selected various levels of texts to address the individual needs of students. The texts had engaging characters, often with recurring roles. The authors’ intent was to establish a relationship between the students and the characters in the texts. Each week the teachers introduced three new texts by reading the stories aloud with feeling and expression. The teachers utilized discussion to enhance comprehension while modeling appropriate fluency. Further, the teachers verbalized their cognition regarding fluency and emphasis on oral reading. The students selected one of the texts, which was in script form. Throughout the week, teachers provided coaching and cueing to further the students’ application of fluency skills. The final performances took place at the end of each week. Martinez et al. conducted pre-and post assessments of the students’ oral reading rates (1999).
results indicate the majority of students realized an average gain of 17 words per minute. The students in the control classroom posted an average gain of 6.9 words per minute. Moreover, the authors found comprehension is enhanced by repetition and practice of both the scripts and the reoccurring roles of the characters. Therefore, Reader’s Theatre is a strategy for repeated and explicit modeling of oral reading fluency.

Reading fluency is critical to the reading success of students. Therefore, it is beneficial for educators to instruct and assess reading fluency within their classrooms (Rasinski, 2003). The assessment of fluency must match the intended results. For example, the simplest method for calculating fluency is to determine the number of words read in one minute minus the errors. This total is the words correct per minute (WCPM). There should be between 50-200 words in the text depending upon grade level. The text utilized for this assessment is most beneficial when the difficulty level is at the student’s independent reading level. According to Hargis (1987) a score of 90% success on a piece of written material is considered independent grade reading level. A score of 75% is instructional level. Fluency occurs after multiple opportunities to read an independent level text.

Data Collection

The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) were developed in the late 1980s as a tool to “monitor progress, evaluate effectiveness of instruction, and identify kindergarten and first-grade students who are at-risk for academic problems” (Kaminski & Good, 1998). The DIBELS measures are indicators of beginning literacy skill development (Good & Kaminski, 2002). DIBELS assesses essential reading skills: phonemic awareness, alphabetic principle, fluency and accuracy, vocabulary and
comprehension (Good & Kaminski, 2002). These assessments were designed to predict the future literary proficiency of students. DIBELS is utilized in grades Kindergarten through third grade to quickly determine how students are developing as a result of the instructional program (Good & Kaminski, 2002). Analysis of the results may be indicative of the need for a program change. DIBELS assessments are conducted during a one-to-one literacy conference. The assessments are leveled and increase in difficulty. In the Oral Reading Fluency (ORF) measure, students are asked to read three unfamiliar passages aloud for one minute. The number of words read correctly in one minute is the achievement score for the passage. At the conclusion of the readings, the middle score is recorded as the students’ rate of oral fluency. Progress is measured against published norms to determine if sufficient progress has been made.

Summary

In conclusion, education will continue to be a challenging profession. The passage of the No Child Left Behind (NCLB) legislation of 2001 catapulted education into the forefront of America’s consciousness (Hardy, 2003). Responding to the needs of our students necessitates identifying and implementing the most effective methods for increasing student achievement. The most salient skill lacking in poor readers is decoding (Pressley, 1998). Decoding effectively during the course of reading is fundamental to acquiring fluency and, indirectly, comprehension. Samuels (1997) contends improved comprehension occurs through increased automatic word recognition. Therefore, fluency fosters comprehension. Fluent readers not only read words automatically, they segment words into meaningful phrases and chunks. By doing so, the reader is able to focus on the meaning of text. This dissertation examined the importance
of reading fluency to the acquisition of proficient reading achievement and the attainment of reading to learn.
CHAPTER III
DESIGN OF STUDY

Introduction

Reading programs have not traditionally included the explicit instruction of fluency. The purpose of the study was to determine the effects of explicit instruction of fluency-building strategies on the oral reading achievement rates of first-grade students. According to the NAEP, there are five components of an effective reading program. Phonemic awareness, phonics, vocabulary, fluency and comprehension are essential elements for beginning reading instruction. Literature relevant to effective reading strategies has dedicated substantial attention to phonemic awareness, phonics, vocabulary, fluency, and comprehension. Only recently have experts in the field of education been researching the role of fluency in reading achievement. The concept of fluency instruction and its importance in the achievement of reading proficiency is emerging in current research. This study provided further information to the growing body of literature regarding reading fluency.

The teachers of the experimental classrooms attended a conference entitled “Creating Fluent Readers from Phonics to Fluency: Strategies for Achieving Reading Proficiency” presented by Dr. Timothy Rasinski, Professor of Literacy Education at Kent State University. Attendance at the conference facilitated by Dr. Rasinski was essential to ensure the comparability of the instruction of the treatment teachers. Dr. Rasinski serves on the editorial staff of the Journal of Literacy Research and has written several articles and books regarding reading instruction. He is nationally recognized as a leading researcher of reading fluency. The fluency concepts presented at the conference were
extensive and research-based. Therefore, all treatment procedures implemented in this study demonstrated a high-level of quality and consistency.

Previous studies in the area of reading fluency have primarily utilized expository texts as the stimulus materials. Many studies have been based upon the altering and modification of basal passages. This study was innovative in design as it employed alternative texts such as nursery rhymes and poetry to incorporate fluency strategies (T. Rasinski, personal communication, March 6, 2006). The authentic repeated reading of interesting texts aided the readers in reading for enjoyment as well as providing simultaneous reading and hearing of language.

Target Population

Northeastern School District in south central Pennsylvania served as the host school district for this study. Northeastern is a growing, suburban-rural school district located in York, Pennsylvania. The population was primarily working-class residential. The demographics of the district were as follows: 89% Caucasian, 6.5% African-American, 3% Hispanic, 1% Asian/Pacific Islander and <1% Other. Total student enrollment was 3,545. The majority of students were Caucasian and of low-middle socioeconomic status (PSSA, 2006).

The sample for the study was comprised of first-grade students enrolled in three Kindergarten through grade three elementary schools in the above described district. The school population for each building was approximately 315, 215 and 319 students. Classroom assignments were determined through committees of grade-level teachers and the building principals. This procedure was the established method for developing rosters within each building. Each classroom consisted of a heterogeneous group of children
and, therefore, composition was comparable. Students with Individualized Education Programs (IEPs) were not included in this study. The classroom composites were of typical size and representative of the community (J. Snoke, personal communication, July, 11, 2007).

According to Snow, Burns & Griffin (1998), the most effective safeguard against reading failure in primary grades is quality instruction. All teachers who participated in this study have obtained their Master’s degree or Master’s equivalency and have received a minimum of satisfactory ratings on their annual evaluations (J. Snoke, personal communication, November 20, 2006; R. March, personal communication, July 11, 2007; S. Minnich, personal communication, July 11, 2007; R. Payne, personal communication, July 12, 2007).

Prior to the beginning of the study, the Superintendent of Northeastern District, in conjunction with the researcher, presented a brief introduction to reading fluency, a synopsis of current research and the possible outcomes of this research study in order to obtain the approval of the School Board of Directors. The parents and guardians of the student participants were given a Parental Information Letter (Appendix A) and a Consent to Participate in a Research Study Form (Appendices B and C). Parental consent for student participation was obtained prior to the implementation of the research study.

Research-Based Fluency Strategies

This study focused on the explicit implementation of three research-based fluency strategies: read-aloud, choral reading and repeated reading. Rasinski (2003) espouses the benefits of reading aloud to students. First, vocabulary and comprehension are improved when students hear fluent reading modeled aloud. Students began to develop more
sophisticated language as a result of teacher modeling (Beck and McKeown, 2001). Second, reading aloud provided an avenue to increased fluency. Students experienced how the meaning of the text was embedded in the interpretation and expressiveness as well as in the words (Rasinski, 2003). Finally, reading aloud increased motivation to read for pure enjoyment. Students experienced the joy of reading by hearing texts read aloud in a comfortable setting.

The second fluency-building strategy implemented in this study was choral reading. Choral reading is one form of supported reading, which provided scaffolding to students (Rasinski, 2003). Teachers provided guidance in the learning of fluency while providing modeling of fluent reading. This method afforded students who struggled with sight word recognition to have the support of the teacher while increasing reading fluency (Kuhn & Stuhl, 2000).

The third fluency strategy utilized in this research study was repeated reading. LaBerge & Samuels (1974) found that repeated readings fostered automaticity. Reader’s Theatre allowed students to practice the skill of repeated reading and provided an enjoyable outlet for performing. The repeated reading of the texts fostered reading fluency (Rasinski, 2003). Further, performance of the scripts permitted a fuller understanding of the story elements, which enhanced reading comprehension of the text (Martinez & Roser, 1985).

The theory of the gradual release of responsibility model (Pearson & Gallagher, 1983) was utilized in this study. This theoretical model segments learning into incremental steps and begins by having teachers provide instruction to students. Students are the passive recipients of knowledge at this level. Next, the teacher allocates a
minimal amount of ownership to the students. This may take the form of guided practice. Students demonstrate understanding of the concept to the teachers with minimal assistance from the teachers. When 80% of the students have mastered the skill, the students perform the activity independently. Finally, the students assume complete responsibility for the content by demonstrating independent performance of the skill. Teachers introduced the fluency strategies and the students worked from total teacher reliance to independent demonstration. The students gradually assumed responsibility for concepts introduced by the teacher.

Method of Sampling

The cluster sampling utilized in this study was a result of the building principals’ assignments of first-grade students for the 2007-2008 academic school year. The first-grade rosters were developed by a team of educational professionals’ (building principal and teachers) placement of students into classrooms based upon academic, behavioral and social needs. After tentative classroom rosters were determined by the team of professionals, the principals analyzed the lists to ensure each classroom contained a heterogeneous composition. A \( t \) test was conducted to establish there was no significant difference between the experimental and control groups at the commencement of this study.

The participants were separated into two groups. One group received treatment during the course of this study. This was the experimental group that engaged in the explicit instruction of fluency-building strategies. The second group was the control group and engaged in traditional reading instruction and received no explicit instruction
in fluency-building strategies. As previously indicated, parental consent forms were completed for each participant prior to implementation.

After identifying the two classrooms of students who participated in the explicit instruction of fluency strategies, two classrooms of similar demographics and within different elementary buildings, were selected as the control group. The students within the treatment classrooms participated in the experimental program which emphasized explicit instruction of fluency-building strategies. The sample size was 56 first-grade students. Twenty-six students in the experimental group and 30 students in the control group comprised the sample population. Classroom teachers assigned to the experimental student groups received professional development in explicit fluency instruction to ensure the quality and equivalency of their instruction in this area. Teachers in the experimental group attended a one-day seminar presented by Dr. Timothy Rasinski. The seminar provided background knowledge and information pertaining to reading fluency.

Measurement Devices

Children learn to read by reading. Therefore, the assessment of reading progress should take place by observing students reading (Fountas & Pinnell, 1996). The Dynamic Indicators of Basic Early Literacy Skills assessment (DIBELS) provides educators with a tangible method for monitoring progress in the area of reading acquisition (Good & Kaminski, 2002). As the name indicates, DIBELS is an indicator of reading development. This assessment is a screening measure for future reading success and academic progress. DIBELS measures are predictive of future reading growth and development (Good & Kaminski, 2002). Automaticity is most frequently measured by
assessing a child’s rate of reading on grade-level texts using a words correct per minute measure (LaBerge, 1974).

DIBELS is the most researched, effective, standardized method for measuring students’ proficiency in reading (Good & Kaminski, 2002).

The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) are short, standardized measures of early literacy development, which provide normative comparisons of local community (Good & Kaminski, 2002). The tests are administered to students individually.

In first grade, it is imperative to establish a foundation of reading readiness skills. First, in order to assess the acquisition of fundamental concepts, the Phoneme Segmentation Fluency (PSF) measure of DIBELS was administered. This measure assessed the students’ abilities to identify and manipulate individual sounds in words (Good & Kaminski, 2002). Second, knowledge of sound/symbol correspondence and blending sounds was assessed by administering the Nonsense Word Fluency (NWF) measure to students. Demonstration of the skills (phonological awareness, sound/symbol correspondence and blending sounds) was expressed verbally. Third, the students participated in the DIBELS Oral Reading Fluency (ORF) assessment. This assessment measured students’ abilities to decode and read a connected text effortlessly (Good & Kaminski, 2002). The Oral Reading Fluency (ORF) is a set of standardized, calibrated texts in which students were asked to read aloud for one minute. The examiner followed along in an assessment booklet marking errors and omissions. The number of words read correctly in one minute was utilized as the achievement score on this assessment. The
pretest scores gathered in January were utilized as the baseline score for this research study.

The first-grade students who participated in this study were given the pretest (DIBELS ORF) in January. At this time, the data determined which students would have their progress monitored. The treatment was administered daily January through May. In May, the students were post-tested using the same DIBELS measure (ORF). The post-test scores were compared to the pretest scores for both the control and treatment groups. Additionally, the total gain of both groups was compared.

**Stimulus Materials**

The experimental group participated in fluency-building activities administered in the classroom by the first-grade teachers. The fluency-building activities were methods identified in the literature as effective strategies for fluency instruction, such as read-aloud, choral reading and repeated reading (Chomsky, 1978; Samuels, 1997; Therrien, 2004; Carrick, 2006; Reutzel, 2006). Further, the study utilized alternative materials.

Treatment procedures were administered daily from January to May for a minimum of two hours per week. Specific timeframes were developed at the classroom teachers’ discretion. This researcher contacted teachers regularly to address concerns and to ensure the quality of the treatment. By way of the basal reading program, students in the control group received the “traditional” fluency instruction. Both classrooms utilized the Houghton-Mifflin Reading Program; therefore, the reading instruction for all students was similar. Further, the instructional time dedicated to reading was equal for both classrooms. The control classrooms continued to implement the traditionally accepted method for teaching fluency, implied instruction. However, the experimental classroom
dedicated a portion of the allotted instructional time to the explicit implementation of the fluency-building strategies.

Students in the experimental group began by receiving instruction through teacher modeling. The teachers engaged the students in dialogue regarding the purpose of the read-aloud. The objective of the read-aloud was based upon the aspects of the Multi-Dimensional Fluency Scale developed by Zutell and Rasinski (1991). Expression & volume, phrasing, and smoothness are the critical components of reading fluency and are the aspects upon which the Fluency Scale is based (Zutell & Rasinski, 1991) (Appendix D). Further, the teachers generated prompts and questions to increase student comprehension (Therrien, Gormley, & Kubina, 2006). In this manner, the teachers provided explicit instruction in fluency through modeling.

In the next phase, the students assumed a degree of ownership of the fluency strategy. The students participated in a method of assisted reading called choral reading. Written material was read aloud by the students with the support of the teacher. In this manner, the students practiced fluency while reading text above their independent reading levels.

Finally, the students demonstrated assimilation of the skill by reading and practicing fluency independently. Repeated reading afforded students the opportunity to engage in fluency practice through authentic, meaningful activities. Reader’s Theatre provided an opportunity for students to perform texts after repeated practice. The teachers provided encouragement and reinforcement of fluency skills during the practice sessions. Because of the simplicity of Reader’s Theatre (no props, no costumes, etc.), the students had ample opportunity to portray expression (Rasinski, 2003).
Beginning in September 2007, the participants of this study had three measures of DIBELS administered. The measures were given on three scheduled occasions (fall, winter and spring) of the academic year. For the purposes of this study, only the January and May scores were utilized. The September scores were needed by the developers of DIBELS for data collection and were not included in this study’s analysis.

In January, the participants were given the DIBELS ORF. This score was utilized as the pretest score for this study. Throughout the course of the spring semester, the students participated in explicit instruction of the fluency strategies listed above. First, the students were given a direct purpose for the read-aloud. The teachers read the passage in a manner that was meaningful and expressive— for example: happy, angry, sad, tired, scared, calm, nervous, etc. Further, the teacher modeled fluency by altering his/her voice to match the oral interpretation of the text, pausing at appropriate spaces to portray meaning, reading with smoothness and with consistent pacing throughout the text (Zutell & Rasinski, 1991). By having both experimental teachers utilize the Multi-Dimensional Fluency Scale (Appendix D) as the guideline, inter-rater reliability was achieved.

During this time, the teachers engaged the students in meaningful dialogue to encourage metacognition regarding reading fluency. The teachers asked questions such as, “Why do you think I paused at this point? What did you think when I paused? How did my rate of reading help you understand this story?” In this manner, the connection between fluency and reading comprehension was made apparent to the students. Instructional materials were in the form of traditional picture books, big books and chapter books.
Next, the students participated in choral reading. The teachers introduced a passage by reading it aloud with fluency. After the introduction, the students joined in the reading of the text. Many additional readings of the text occurred in the subsequent days. It has been hypothesized that the foundation of phonemic awareness is based in children’s knowledge of nursery rhymes (Maclean, Bradley, & Bryant, 1987). The results of the research study indicate early knowledge of nursery rhymes is strongly and specifically related to the development of reading abilities (Maclean, Bradley, & Bryant, 1987). During early childhood, children assimilated understanding and skills by engaging poems, songs and rhymes (Snow, Burns, & Griffin, 1998). Poems, chants, songs and nursery rhymes were the instructional materials utilized for this strategy.

Finally, the students engaged in Reader’s Theatre. This activity allowed the students to participate in repeated readings of meaningful text for an authentic purpose. The students demonstrated their knowledge of fluency during the performance of short scripts. There were minimal props, so the emphasis was on written language.

These strategies were implemented in sequential order at a rate deemed appropriate by the professional expertise of the classroom teachers. For example, when the students participated adequately in read-alouds, the teachers instituted the choral reading strategy. The read-alouds continued to be a part of the treatment. Reader’s Theatre was added at the teachers’ discretion. Therefore, all three fluency strategies were implemented simultaneously during the latter part of the treatment period.

In May, the DIBELS Oral Reading Fluency (ORF) was administered a second time to both the experimental and control groups. This score was compared with the pretest score and differences were determined and analyzed.
This researcher provided grade-level appropriate materials to the experimental classroom teachers. Lesson plans detailing explicit instruction of the strategies were provided as well. The lesson plans served to motivate the experimental teachers to design additional lesson plans of their own creation. Sample lesson plans are included as Appendices E through G.

This study focused on the explicit instruction of fluency strategies. The purpose of this study was twofold: (1) to examine the effect of fluency-building strategies on the oral reading rates of first-grade students, and (2) to assess the contribution of the explicit instruction variable to the attainment of the goals of the study. Within this study, the independent variables were the fluency-building instruction and the explicit implementation of the strategies. Further, the dependent variable was the oral reading achievement levels of the students.

According to LaFountain and Bartos (2002) the design of this study allowed for internal validity with regards to selection, mortality, history, testing, instrumentation, regression and interaction of the selection and maturation. The inherent design of this research study has limitations in regard to providing control for the interaction of selection with the independent variable and reactive arrangements of independent variable situations. Further, this design did not control for the interaction between testing and the independent variable. At the conclusion of the study, the educators of the control group classrooms were provided with the same fluency-building strategies for future use.

Validity and Reliability

An analysis of Curriculum-Based Measurement (CBM) Reading procedures (upon which DIBELS is based) indicated high correlations, which indicate reliability of
this instrument. Through the use of test-retest process, the reliability coefficients for DIBELS ranged from .92 to .97 (Good & Kaminski, 2002). Further, Tindal, Marston, & Deno (1983) found alternate-form reliability of different reading passages derived from the same level ranged from .89 to .94. The reliability coefficients for the various versions of the DIBELS Oral Reading Fluency measure ranged from .89 to .96. This instrument has high reliability in consistently measuring students’ oral reading fluency.

Construct validity for Curriculum-Based Measurement (CBM) has been established in the literature (Good & Kaminski, 2002). Validity coefficients supporting the construct validity of CBM are in the .60 to .80 range (Good & Jefferson, 1998). Good & Jefferson (1998) report CBM reading assessment measures to be valid indicators of reading ability. Further, utilizing CBM procedures to evaluate basic skill acquisition is a valid basis for interpreting student achievement (Good & Jefferson, 1998). The technical adequacy of CBM ORF is closely related to the technical adequacy of DIBELS ORF (Good & Kaminski, 2002).

Prior to commencing this research study, a pretest (DIBELS Oral Reading Fluency) was administered to all student participants by two highly trained evaluators. During the administration of the DIBELS ORF, the evaluators periodically utilized the DIBELS Oral Reading Fluency Assessment Integrity Checklist (Good & Kaminski, 2002) to establish inter-rater reliability and ensure maximum consistency (Appendix H). The researcher was not an assessor in this study.

Analysis and Design

After implementing the treatment to the experimental group, the DIBELS Oral Reading Fluency was given a second time to all participants by the same highly trained
administrators. A pretest-posttest control group design was utilized in this study. The pretest and posttest scores were compared and growth was determined through the use of descriptive and inferential statistics including multiple $t$ tests. According to Gravetter & Wallnau (2004), independent $t$ tests aid in determining the significance of the mean difference between two groups. The statistical analyses conducted determined the significance of the difference between the means of the Oral Reading Fluency scores of the experimental and control groups. The $t$ tests were generated utilizing the statistical functions of a TI-84 Plus graphing calculator. The generated analyses allowed for inferences and generalizations to be made regarding the effectiveness of explicit fluency instruction on the increase of oral reading rates. A significance level of $p \leq .05$ was utilized.

Data was collected by analyzing the achievement scores as measured by the DIBELS Oral Reading Fluency (ORF). The design for this study was a quasi-experimental pretest-posttest control group design. This design allowed for an analysis of main effect of fluency strategies and the relationship with oral reading achievement. An illustration of this design follows:

\[
\begin{array}{ccc}
R & O & X \\
R & O & O \\
\end{array}
\]

Where R represents Randomized, X symbolizes the Treatment and O stands for the Testing/Measurement (LaFountain & Bartos, 2002).

Descriptive and inferential statistics were utilized for the analysis of the data collected in this study. To determine the effectiveness of explicit fluency-building strategies on student oral reading achievement, a $t$ test was utilized to analyze the
parametric interval data. A comparison of data for both the experimental and control groups was performed. The data was analyzed to determine if the students were achieving the benchmarked goal or performing below (strategic) or very below (intensive) the benchmark.
CHAPTER IV

PRESENTATION AND INTERPRETATION OF DATA

Introduction

The purpose of this study was to determine if explicit fluency instruction contributed positively to the oral reading rates of first-grade students. The data reported were the results of a sixteen week-long research study. Treatment was administered daily from January 2008 through May 2008 for a minimum of two hours a week. Data was collected utilizing the measure tool Dynamic Indicators of Basic Early Literacy Skills (Good & Kaminski, 2002). Students enrolled in four classrooms in three Kindergarten through grade three elementary schools in a suburban-rural school district participated in the study. The teachers were required to have received both a Master’s degree or Master’s equivalency and a minimum of satisfactory rating on professional evaluations.

In order to provide explicit instruction in research-based fluency strategies, two of the teachers participated in a professional seminar presented by Dr. Timothy Rasinski. These teachers comprised the experimental group and implemented the prescribed treatment to their classes. The two remaining teachers continued to provide reading instruction as was traditional to their teaching methods and in accordance with the host district’s mandated curriculum.

The primary goal of this study was to determine if explicit instruction in fluency-building strategies increases oral reading rates as measured by the Oral Reading Fluency measure of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS). This researcher hypothesized there would be a statistically significant increase in the oral reading achievement rates of first-grade students who have received explicit instruction
in fluency-building strategies as compared to the oral reading achievement levels of those children who did not receive explicit instruction in fluency-building strategies. Therefore, the independent variable for this study was the type of reading instruction. Students assigned to the control classrooms received reading instruction typically recommended by the host school district. The students in the experimental classrooms received direct, explicit and systematic instruction in fluency-building strategies.

The prescribed treatment consisted of three research-based fluency strategies. Students in the experimental group participated in read-aloud, choral reading and repeated reading strategies coupled with explicit fluency instruction. Although both the control and experimental groups utilized identical reading materials mandated by the curriculum, the experimental group incorporated the explicit instruction component. The planned treatment utilized the theory of gradual release of responsibility model (Pearson & Gallagher, 1983). The incremental steps provided scaffolding to maximize student learning. Teacher discretion based upon student mastery was utilized to determine the pace of implementation for the three research-based strategies.

First, the teachers in the experimental group began by providing instruction to students while the students were passive recipients of knowledge. The read-aloud strategy is one in which the teacher modeled fluent reading while providing explicit instruction of the fluency techniques utilized. Zutell & Rasinski’s Multi-Dimensional Fluency Scale (Appendix D) afforded a visual measurement for the experimental teachers to optimize consistency (1991).

Second, the theory provided an opportunity for the students in the experimental group to assume partial ownership in the form of guided practice. Teachers modeled
fluent reading of authentic materials (poems, songs, chants, nursery rhymes) followed by time for students to actively participate in the rereading of the texts.

Third, the students in the experimental group demonstrated assimilation of the skill by performing Reader’s Theatre scripts independently with appropriate fluency. Scripts were performed after several exposures to the written script.

Organization of Findings

The population sample in this research study represented the total population of the first-grade students enrolled in Northeastern School District. Included in this study were twenty-six first-grade participants in the experimental group and thirty first-grade student participants in the control group. The participation rate was 83.9% for the experimental group and 85.7% for the control group.

The results of this research study indicated no statistically significant academic improvement in the oral reading rates of the experimental group who received explicit, systematic instruction in reading fluency and the control group who participated in traditional reading instruction. The mean oral reading rate of the experimental group was not significantly greater than the mean oral reading rate of the control group. As a result, there was no evidence to support the prescribed treatment in this research study was more effective than traditional reading strategies. Therefore, this researcher has accepted the null hypothesis indicating explicit instruction of research-based fluency strategies does not significantly improve the oral reading rates of first-grade students.
Table 1

Oral Reading Fluency Scores for Experimental Classroom 1: Winter and Spring

Experimental 1

<table>
<thead>
<tr>
<th>Student</th>
<th>Winter ORF</th>
<th>Spring ORF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>44</td>
<td>85</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>88</td>
<td>106</td>
</tr>
<tr>
<td>7</td>
<td>24</td>
<td>79</td>
</tr>
<tr>
<td>8</td>
<td>25</td>
<td>48</td>
</tr>
<tr>
<td>9</td>
<td>36</td>
<td>41</td>
</tr>
<tr>
<td>10</td>
<td>65</td>
<td>104</td>
</tr>
<tr>
<td>11</td>
<td>94</td>
<td>106</td>
</tr>
<tr>
<td>12</td>
<td>21</td>
<td>33</td>
</tr>
<tr>
<td>13</td>
<td>12</td>
<td>28</td>
</tr>
<tr>
<td>15</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>16</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>17</td>
<td>93</td>
<td>119</td>
</tr>
<tr>
<td>18</td>
<td>10</td>
<td>27</td>
</tr>
</tbody>
</table>

*Note.* Omitted numbers indicate lack of parental consent or student mortality.
Table 1 delineates the raw Oral Reading Fluency scores collected from Experimental Classroom One. The winter ORF scores produced in January served as the pretest scores. A student score of zero was a result of the ORF measure’s difficulty level. The two students who scored zero accrued numerous teacher-provided words. Therefore, as a result of the students’ difficulty reading the text independently, the evaluators terminated the assessment. Spring ORF scores were gathered in May and represent the post-test scores. It was interesting to note 50.0% of the participants achieved proficiency and reached the benchmark score of 40 on the Spring ORF assessment. Due to student mortality and lack of parental consent, numbers were omitted from the student identification system.
Table 2

Oral Reading Fluency Scores for Experimental Classroom 2: Winter and Spring

Experimental 2

<table>
<thead>
<tr>
<th>Student</th>
<th>Winter ORF</th>
<th>Spring ORF</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>21</td>
<td>35</td>
</tr>
<tr>
<td>6</td>
<td>128</td>
<td>145</td>
</tr>
<tr>
<td>7</td>
<td>28</td>
<td>65</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>31</td>
<td>90</td>
</tr>
<tr>
<td>11</td>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td>12</td>
<td>22</td>
<td>68</td>
</tr>
<tr>
<td>13</td>
<td>30</td>
<td>65</td>
</tr>
<tr>
<td>14</td>
<td>25</td>
<td>62</td>
</tr>
<tr>
<td>16</td>
<td>70</td>
<td>81</td>
</tr>
</tbody>
</table>

Note. Omitted numbers indicate lack of parental consent or student mortality.

Table 2 outlines the raw Oral Reading Fluency scores generated by Experimental Classroom 2. The Winter ORF scores served as the pre-test scores for the purposes of this study. Spring ORF scores were derived after the administration of the explicit research-based fluency instruction. The statistical analyses determined 70% of the students achieved the benchmark score of 40 words per minute in the spring.
Table 3

Oral Reading Fluency Scores for Control Classroom 1: Winter and Spring

Control 1

<table>
<thead>
<tr>
<th>Student</th>
<th>Winter ORF</th>
<th>Spring ORF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>99</td>
<td>128</td>
</tr>
<tr>
<td>2</td>
<td>37</td>
<td>93</td>
</tr>
<tr>
<td>4</td>
<td>127</td>
<td>137</td>
</tr>
<tr>
<td>6</td>
<td>41</td>
<td>56</td>
</tr>
<tr>
<td>7</td>
<td>89</td>
<td>96</td>
</tr>
<tr>
<td>8</td>
<td>66</td>
<td>99</td>
</tr>
<tr>
<td>9</td>
<td>26</td>
<td>61</td>
</tr>
<tr>
<td>10</td>
<td>33</td>
<td>72</td>
</tr>
<tr>
<td>11</td>
<td>18</td>
<td>55</td>
</tr>
<tr>
<td>12</td>
<td>39</td>
<td>69</td>
</tr>
<tr>
<td>13</td>
<td>88</td>
<td>125</td>
</tr>
<tr>
<td>14</td>
<td>28</td>
<td>47</td>
</tr>
<tr>
<td>15</td>
<td>144</td>
<td>142</td>
</tr>
<tr>
<td>16</td>
<td>28</td>
<td>53</td>
</tr>
</tbody>
</table>

Note. Omitted numbers indicate lack of parental consent or student mortality.

Table 3 represents the Oral Reading Fluency scores of Control Classroom 1. All students in this classroom were able to achieve the spring benchmark score of 40 words per minute.
Table 4

Oral Reading Fluency Scores for Control Classroom 2: Winter and Spring

Control 2

<table>
<thead>
<tr>
<th>Student</th>
<th>Winter ORF</th>
<th>Spring ORF</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>19</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>30</td>
<td>81</td>
</tr>
<tr>
<td>5</td>
<td>36</td>
<td>59</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>32</td>
</tr>
<tr>
<td>7</td>
<td>110</td>
<td>136</td>
</tr>
<tr>
<td>8</td>
<td>21</td>
<td>53</td>
</tr>
<tr>
<td>9</td>
<td>16</td>
<td>32</td>
</tr>
<tr>
<td>11</td>
<td>55</td>
<td>82</td>
</tr>
<tr>
<td>12</td>
<td>33</td>
<td>35</td>
</tr>
<tr>
<td>14</td>
<td>21</td>
<td>73</td>
</tr>
<tr>
<td>15</td>
<td>18</td>
<td>29</td>
</tr>
<tr>
<td>16</td>
<td>18</td>
<td>37</td>
</tr>
<tr>
<td>17</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>18</td>
<td>81</td>
<td>116</td>
</tr>
<tr>
<td>19</td>
<td>67</td>
<td>95</td>
</tr>
</tbody>
</table>

*Note.* Omitted numbers indicate lack of parental consent or student mortality.
Table 4 illustrates the scores of Control Classroom 2. The winter scores of the Oral Reading Fluency measure served as the baseline for this study. In the spring, 43.8% of the students achieved the benchmark score of 40 words per minute.

Table 5

Descriptive Statistics for Grade 1

<table>
<thead>
<tr>
<th>Group</th>
<th>Winter ORF</th>
<th>Spring ORF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>36.4</td>
<td>59.6</td>
</tr>
<tr>
<td>Std. D.</td>
<td>32.7</td>
<td>36.3</td>
</tr>
<tr>
<td>Median</td>
<td>24.5</td>
<td>55</td>
</tr>
<tr>
<td>Min.</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Max.</td>
<td>128</td>
<td>145</td>
</tr>
<tr>
<td>N</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>46.8</td>
<td>72.6</td>
</tr>
<tr>
<td>Std. D.</td>
<td>37.6</td>
<td>36.8</td>
</tr>
<tr>
<td>Median</td>
<td>33</td>
<td>65</td>
</tr>
<tr>
<td>Min.</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>Max.</td>
<td>144</td>
<td>142</td>
</tr>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

Table 5 represents measures of central tendency and variation by group for the Dynamic Indicators of Basic Early Literacy Oral Reading Fluency measure, which was utilized as both the pre-assessment and post-assessments. A $t$ test established no
statistically significant difference between the experimental and control groups at the commencement of the study. The descriptive statistics indicated no statistically significant increase in the oral reading rates of the two groups at the end of this study. The pretest difference of means between the experimental versus the control was 10.4. The difference in means of the experimental versus control group posttest was 13.0. Although there was a discrepancy in the means, it was not large enough to consider the population statistically significantly different. Further, the mean and standard deviation indicated the critical information in this study. The median, minimum and maximum did not contribute to the conclusions determined by this study.

Table 6

<table>
<thead>
<tr>
<th>Pair</th>
<th>Mean Difference</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp.vs Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winter</td>
<td>10.4</td>
<td>.137</td>
</tr>
</tbody>
</table>

A two-tailed t test was conducted to determine the equivalence of the experimental and control groups. Table 6 indicates there was not a statistically significant difference in the means of the experimental and control group at the commencement of this research study. The difference in the means was so minute as to indicate the scores could have been generated from the same population. The difference was not large enough for this researcher to conclude the scores were from different populations. The p values were greater than the predetermined alpha level of .05. Therefore, the results were likely generated from the same population.
Table 7

Comparison of Oral Reading Fluency Means: Spring

<table>
<thead>
<tr>
<th>Pair</th>
<th>Mean Difference</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp.vs Control</td>
<td>-13</td>
<td>0.905</td>
</tr>
</tbody>
</table>

At the completion of the research study, a one-tailed $t$ test was utilized to test the null hypothesis which states the experimental group mean will be greater than the mean of the control group. Table 7 illustrates the results of the analysis. The negative value of the difference of the means indicated the control group mean was greater than the experimental group mean. The dramatically large $p$ value was an indicator that the treatment did not render a significant improvement upon the oral reading achievement of the experimental group. The critical information pertaining to the purpose of this study was the combined data of the experimental classrooms’ scores as compared to the control classrooms’ scores. This researcher accepted the null hypothesis which indicated no statistically significant difference was observed between the experimental oral reading rate mean and the control oral reading rate mean as a result of the explicit fluency-building instruction intervention.
Table 8

Comparison of Oral Reading Fluency Means

<table>
<thead>
<tr>
<th>Pair</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>35.5</td>
<td>55.9</td>
</tr>
<tr>
<td>SD</td>
<td>31.8</td>
<td>37.0</td>
</tr>
<tr>
<td>N</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Exp 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>37.8</td>
<td>65.5</td>
</tr>
<tr>
<td>SD</td>
<td>35.7</td>
<td>36.4</td>
</tr>
<tr>
<td>N</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Con 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>61.6</td>
<td>88</td>
</tr>
<tr>
<td>SD</td>
<td>40.9</td>
<td>33.8</td>
</tr>
<tr>
<td>N</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Con 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>33.8</td>
<td>59.1</td>
</tr>
<tr>
<td>SD</td>
<td>30</td>
<td>34.8</td>
</tr>
<tr>
<td>N</td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

The descriptive statistics in Table 8 provide a detailed examination of the data reported in Table 5. Table 8 summarizes the battery of t tests conducted for the sole purpose of examining the data for each combination of circumstances. Although the data contained in Table 8 was not directly utilized in the developing study conclusions, the
data was included for the purpose of completeness. The data was available and was presented to ensure full disclosure of the data collected as a result of this research study.

Data revealed a slight indication that the students assigned to the Control 1 classroom may have origins from a different population, however, this discrepancy was neutralized by combining this group with the students assigned to Control 2 classroom.

Table 9
Comparison of Classroom Means: Winter

<table>
<thead>
<tr>
<th>Pair</th>
<th>Mean Difference</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp 1 vs. Exp 2</td>
<td>2.3</td>
<td>0.8696</td>
</tr>
<tr>
<td>Exp 1 vs. Con 1</td>
<td>26.1</td>
<td>0.0652</td>
</tr>
<tr>
<td>Exp 1 vs. Con 2</td>
<td>1.7</td>
<td>0.8774</td>
</tr>
<tr>
<td>Exp 2 vs. Con 1</td>
<td>23.8</td>
<td>0.1448</td>
</tr>
<tr>
<td>Exp 2 vs. Con 2</td>
<td>4.0</td>
<td>0.7715</td>
</tr>
<tr>
<td>Con 1 vs. Con 2</td>
<td>27.8</td>
<td>0.0469</td>
</tr>
</tbody>
</table>

Table 9 summarizes the results of the independent two-tailed t tests utilized to analyze the data collected prior to beginning this research study. Five of the six p values are greater than the predetermined significance level of .05. The data illustrated the populations were the same at the commencement of the study by trend. Two points of interest were noted in the analysis of the winter mean scores. The p value of Experimental 1 versus Control 1 was close to being different, however, it was still less than the predetermined significance level. Although the p value of Control 1 versus
Control 2 was slightly less than the .05 significance level and was potentially different from each other, it did not influence the results of this study.

Table 10

Comparison of Classroom Means: Spring

<table>
<thead>
<tr>
<th>Pair</th>
<th>Mean Difference</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp 1 vs. Con 1</td>
<td>-32.1</td>
<td>0.9903</td>
</tr>
<tr>
<td>Exp 1 vs. Con 2</td>
<td>-3.2</td>
<td>0.5986</td>
</tr>
<tr>
<td>Exp 2 vs. Con 1</td>
<td>-22.5</td>
<td>0.9295</td>
</tr>
<tr>
<td>Exp 2 vs. Con 2</td>
<td>6.4</td>
<td>0.3312</td>
</tr>
</tbody>
</table>

Table 10 depicts a detailed examination of the data generated from a one-tailed $t$ test and reported in Table 7. As mentioned earlier, the negative difference in means indicated the control mean was higher than the experimental mean. The significant information in this table was the $p$ values. All four $p$ values were greater than the predetermined significance level of .05. As a result, it was inferred that the treatment implemented during this research study did not significantly increase the oral reading achievement rates of the students in the experimental group. Results were the same for both control classes, therefore, the slightly low $p$ value at the beginning of this study was neutralized. In the comparison of Experimental 2 versus Control 2, this group started out slightly higher and continued to perform at a higher level, however, the data indicated a lack of significant improvement in oral reading rates. Given the detail in the reported data, it was determined the prescribed treatment did not significantly increase the oral reading rates of the students in the experimental group.
Theoretically, it was possible that the high achievement of the students in the Control 1 class skewed the results of this study. However, it was this researcher’s opinion that any effect caused by the high achievement of Control 1 cannot account for the dramatic results generated by the empirical data analysis. The treatment prescribed in this research study did not have a major impact on the oral reading rates of first-grade students.
CHAPTER V
DISCUSSION

Introduction

Increased academic requirements and accountability are forcing the educational system to examine and implement teaching practices which have been deemed most effective. The No Child Left Behind (NCLB) legislation of 2001 has increased school districts accountability and challenged educators to evaluate teaching practices to determine if modifications are necessary. The importance of reading as the key to lifelong success has been established in the literature. The ability to read and comprehend efficiently affords individuals a multitude of opportunities. Educators realize the urgency in determining effective methods for reducing the number of students who struggle with the acquisition of reading. Reading fluency was addressed in this research study due to the lack of explicit fluency instruction in traditional reading programs. The purpose of this research study was to confirm or negate the advantages of explicit instruction of research-based fluency strategies on the oral reading rates of first-grade students.

Reading fluency provides an avenue for students to progress from word-by-word decoding to comprehension. Students who exert significant cognitive energy to decode text have limited mental resources remaining for comprehension. Because phonemic awareness, phonics, vocabulary and comprehension receive great attention in today’s communication arts curricula, this research focused on the often overlooked aspect of reading fluency. Research has determined reading fluency has traditionally been the neglected aspect of comprehensive reading programs. A deficiency in fluency is a significant contributor to reading difficulty especially in the area of comprehension.
There is a reciprocal relationship between reading fluency and comprehension. Reading comprehension levels are enhanced by fluency practices and fluency is enhanced by increased reading comprehension. Reading achievement requires comprehension and fluency is reflective of reading comprehension. As a result, reading fluency is an essential component of comprehensive beginning reading programs.

Procedures

The study was conducted during a sixteen-week period in a suburban-rural school district in south-central Pennsylvania. Four classrooms participated in this research study. A one-day seminar detailing research-based fluency strategies provided essential information to the experimental group. Explicit fluency instruction was given to both experimental classrooms for a minimum of two hours per week. Two teachers in the control group continued to provide reading instruction as is traditional to the host district. The sample population included 56 first-grade students. 83.9% of students in the experimental group and 85.7% of students in the control group participated in the study.

Findings and Interpretations

Explicit instruction of research-based fluency strategies did not significantly improve the oral reading rates of the experimental group. There are several limitations realized in the execution of this research study. First, there were a number of students whose families relocated their primary residences during the implementation of this study. Their data could not be included in the final analysis. Several students’ families became members of the participating classrooms during the study. Their data was excluded from the analysis as well.
Second, this study was designed to be innovative in that it utilized authentic materials such as big books, trade books, poems, nursery rhymes, songs and chants as stimulus materials. Other research studies relied upon modified expository texts such as basal reading passages. Rationale for this decision was not discussed in scientific research studies that were reviewed. It is possible there is an advantage to utilizing expository texts in regards to reading fluency.

Last, this researcher observed two possible limitations in regards to the administration of the Oral Reading Fluency measure of the Dynamic Indicators of Basic Early Literacy Skills. Evaluator language may have influenced the amount of understanding and consequently, the raw score generated by the student. Another possible limitation was the students’ prior retelling experiences may have influenced the retelling portion of the ORF measure. More experience may have enabled students to retell more comprehensively than those students who had less experience with the skill of story retelling.

Conclusions

The major goal of the study was to determine if the oral reading rates of first-grade students would be significantly increased by the explicit instruction of research-based fluency strategies. Therefore, as a result of \( t \) test analyses of the data, the null hypothesis of this research study was retained which indicated no significant increase in the oral reading achievement rates of first-grade students who have received explicit instruction in fluency-building strategies.
Implications

Although, the empirical results did not yield increases in the oral reading rates of the participants as a result of the explicit fluency instruction based on the design, there are important lessons to be learned from this study. Because the results of this study are almost the antithesis of this study’s hypothesis, a question emerges, “Why did the students in the experimental group not perform statistically higher as a result of the prescribed treatment?”

A contributing factor may be teacher effectiveness and years of teaching experience. After careful analysis of the Oral Reading Fluency data collected during the course of this research, it appears as though teacher effectiveness in content delivery may be more influential in increasing student achievement than a prescribed treatment.

This research study has raised many questions pertaining to the effectiveness of teaching reading. First, would it be beneficial to examine measures of DIBELS, such as Phoneme Segmentation Fluency or Nonsense Word Fluency, as potential predictors of reading fluency? Second, would other research-based fluency strategies have been more effective than the three selected for this study? Third, would a different treatment have been more effective for those students whose reading ability is below average? Fourth, would the results have been different if the treatment was provided over a longer period of time? Fifth, would a larger sample of student participants have yielded more positive results? Sixth, would combining quantitative and qualitative methodology in the design of a study provide a more comprehensive view of the issue? Seventh, would the incorporation of a parental involvement component yield more positive results in regard
to oral reading fluency rates? Finally, does teacher effectiveness play a more important role in teaching than specific teaching strategies?

Recommendations for Future Study

This study will add to the growing body of literature regarding reading fluency. Additional research in related areas of reading fluency and the explicit instruction of fluency-building strategies can be conducted.

Phoneme Segmentation Fluency is a stepping stone to Oral Reading Fluency. Future researchers may investigate whether the fall scores of the Phoneme Segmentation Fluency measure of DIBELS correlate with or are an accurate predictor of oral reading fluency scores gathered in the spring. A decrease in Phoneme Segmentation Fluency scores compared to an increase in Oral Reading Fluency scores may provide pertinent information regarding the teaching of beginning reading. Determining if there is a point where children no longer segment words and begin to read words holistically during this measure may prove beneficial. Further, future researchers may examine the possible relationship between Nonsense Word Fluency measure and the Oral Reading Fluency measure.

Another research opportunity might be to select several other research-based fluency strategies. Researchers could examine the effectiveness of any combination of buddy reading, partner reading, echo reading, tape-assisted reading, radio reading and oral recitation reading. Although the selected strategies of read-aloud, choral reading and Reader’s Theatre did not prove statistically significant in terms of increasing the oral reading rates of first-grade students, other strategies and combinations may produce different results and outcomes.
A future study may investigate whether explicit fluency-building strategies may be more effective for students who demonstrate below-average academic performance. Progress monitoring incorporating timers and graphs may prove to be motivating to students and garner different results. It is possible students who are not able to read grade-level texts independently may benefit from the incorporation of explicit fluency instruction.

Another research possibility might be a longitudinal study in which students begin explicit instruction in fluency strategies in first grade and continue to receive this instruction through second grade. It is possible that given more exposure to research-based fluency strategies, for example, from winter of first grade to the spring of second grade, the results of this study may yield varied conclusions. A study in which students are participating in explicit fluency instruction for the majority of an academic year may reveal increased levels of oral reading rates. Longer treatment may be required to show more positive results for all levels of learners.

A larger sample size might alter the analysis of the results. The design of this study allowed for a relatively small sample size ($N=56$). Conducting further research on a more robust population sample may garner pronounced positive results in increasing oral reading rates through the utilization of explicit fluency-building strategies.

Another idea for future study is to incorporate a quantitative component in conjunction with the qualitative methodology. Teacher observations and perceptions regarding the implementation of treatment procedures and student achievement may prove to be enlightening. Anecdotal observations of student performance and academic gain may be of value in some instances.
The inclusion of a parental involvement element within the context of reading fluency is another possible research topic. By including parents in the design of the study, student motivation and the importance of reading achievement may be increased. The higher levels of motivation and reinforcement may garner more positive results in reading fluency.

Finally, there is a distinct possibility of variations of teaching philosophies among the teachers involved in this study. There is some indication teacher effectiveness may be more successful than the implementation of explicit research-based fluency strategy instruction in increasing oral reading rates. All participants in this study, with the exception of one, gained points in oral reading fluency from the beginning of implementation to the end of the study. This student read fluently with expression and no errors during the spring post-test assessment. A loss of total words read per minute was caused by the student failing to track the text appropriately and thus, omitted two lines of text. This omission totaled twenty-four words. Had this student tracked the text, her total gain would have been twenty words. The high level of student skill acquisition may indicate that the teachers involved in this study delivered effective instruction in teaching reading fluency, regardless of the implementation of research-based fluency strategies.

A noteworthy question is: What would have happened if the Control groups had implemented the fluency-building strategies? Effective teachers teach effectively. Student learning is maximized by effective teaching. Teachers who activate prior knowledge, make relevant connections to their students’ lives, provide appropriate scaffolding and guidance during learning opportunities and monitor and assess regularly are employing strategies to maximize student learning. The data collected during this
research study revealed gains in oral reading fluency for all but one participant. This may indicate a high level of effectiveness of the teachers involved in this study. An idea for further research would be to investigate the effects of research-based fluency strategies in conjunction with the principles of teacher effectiveness.

Summary

In conclusion, this research study began as an assessment of the impact of explicit fluency-building strategy instruction on the oral reading rates of first-grade students. The research study has led to further questions about fluency instruction and the impact of research-based fluency strategies in beginning reading programs. The empirical data results demonstrated no significant differences when comparing the oral reading rates of the participants who received explicit instruction in research-based fluency strategies. Therefore, this researcher has accepted the null hypothesis indicating the same. Caution is advised in the interpretation of the results of this study as the explicit teaching component is supported and recommended by the National Reading Panel.

Because of the reciprocal and interdependent relationship between fluency and reading comprehension, fluency practices should be included in language arts curricula. Although the results of this study did not provide evidence to support the inclusion of explicit fluency-building strategies, educators may wish to further investigate the implementation of fluency-building strategies into their beginning reading instruction. Reading fluency is the bridge connecting word-by-word reading to reading for meaning. Fluent reading enhances text comprehension. Additional research is necessary to determine the most effective manner in teaching children to read. This study generated
results which will add to the body of knowledge regarding the teaching of reading and facilitate the process of aiding more students in achieving reading proficiency.
REFERENCES


http://www.busyteacherscafe.com/units/fluency.htm


from www.pde.state.pa.us.


Wagner, R. K., Torgeson, J. K., Rashotte, C. A., Hecht, S. A., Barker, T. A., Burgess,

APPENDIX A

Parent Information Letter
Dear Parent/Guardian,

My name is Holly Walker. I am a first-grade teacher at Conewago Elementary School. Currently, I am pursuing a doctoral degree in Educational Leadership at Duquesne University.

Enclosed for your review is information regarding a research study I am conducting at Northeastern School District. The project seeks to investigate how various teaching strategies affect first-grade students’ oral reading rates. The results will be used to plan future educational programs. I am requesting your permission to include your child’s assessment information in this research project. Your consent for your child’s participation is essential for this research project. This study will be conducted between January 2008 and May 2008 and is supported by the administration of Northeastern School District. All activities will occur within the hours of the school day. There are no additional requests made of your child.

Northeastern School District has adopted the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment. This instrument will be administered to your child two times during the school year, once in January and again in May. The resulting data will be used to measure the growth in students’ oral reading rates. I am requesting permission to use these oral reading scores and compare them to other students whose teachers used a different teaching strategy. Your child’s name will never appear on any research instruments. No identification of students will be made in the data analysis. Any identifiers, either direct or indirect, will be deleted to protect and ensure confidentiality.

To add validity to the research project, it is necessary to have a control group that does not have an intervention. Data comparison of the control group and the intervention group ensures the changes are a result of the intervention. In this way, researchers can be sure they are measuring what they intend to measure.

Please take a moment to review the enclosed materials. I would greatly appreciate it if you would read and sign the “Consent to Participate in a Research Study” form and return the signed consent form in the self addressed stamped envelope provided no later than Friday, January 4, 2008.

Should you have any questions regarding this study, please feel free to call me at 717.650.1922. I appreciate your assistance in the completion of this project.

Sincerely,

Holly Walker
Doctoral Candidate: Duquesne University
APPENDIX B

Consent for Student Participation in a Research Study Form
Explicit Instruction in Reading Fluency
CONSENT FOR STUDENT PARTICIPATION IN A RESEARCH STUDY
Explicit Instruction in Reading Fluency

TITLE: The effects of explicit fluency-building strategies on the oral reading rates of first grade students

INVESTIGATOR: Holly Walter
1679 Lilac Road
York, PA 17408
Phone: 717-650-1922
E-mail: walktorh@ncslk12.pa.us

ADVISOR: Dr. David Popper
Shippenburg University
717-477-1124

SOURCE OF SUPPORT: This study is being performed in partial fulfillment of the requirements for the Doctor of Education degree in Educational Leadership at Duquesne University.

PURPOSE: Your child is being asked to participate in a research project that seeks to investigate the effect of explicit fluency-building strategies on the oral reading rates of first grade students. Students will receive instruction in research-based reading fluency strategies from their classroom teacher. Teachers will engage students in explicit instruction of fluency through the use of three research-based fluency strategies and the discussion and modeling of fluency practices. The instruction will occur daily from January 2008 through May 2008 and will occur within the hours of the school day. Northeastern School District has adopted the Dynamics Indicators of Early Literacy Skills instrument as the most effective method for...
monitoring reading development.
Therefore, DIBELS measurements will be utilized to gather data for this study. This instrument will be administered to your child two times during the school year, once in January and again in May. The resulting data will be used to measure the growth in students’ oral reading rates. I am requesting permission to use these oral reading scores and compare them to other students whose teachers used a different teaching strategy. Your child’s name will never appear on any research instruments. No identification of students will be made in the data analysis. Any identifiers, either direct or indirect, will be deleted to protect and ensure confidentiality.

These are the only requests that will be made of your child.

RISKS AND BENEFITS:
There are no risks greater than those encountered in everyday life involved in participating in this research project. Further, this project will contribute to the research literature on effective reading instruction.

COMPENSATION:
Your child will not be compensated for participation. Additionally, participation in the project will require no monetary cost to your child.

CONFIDENTIALITY:
Your child’s name will never appear on any research instrument. All written materials will be stored in a locked file and will be destroyed five years after the completion of the research. All identifiers, direct or indirect, will be deleted to protect and ensure confidentiality.

RIGHT TO WITHDRAW:
You are under no obligation to consent to your child’s participation in this research project. You are free to withdraw your consent at any time. These will be no
SUMMARY OF RESULTS:

Upon request, a summary of the results of this research study will be supplied to you.

VOLUNTARY CONSENT:

I have read the above statements and understand that my participation is voluntary and that I am free to withdraw my consent at any time. Accordingly, I certify that I consent to my child's participation in this research project.

Please contact Holly Walker, Principal Investigator: 717.650.1922 if you have any questions about your child's participation in this study.

I understand that should I have any further questions about my child's participation in this study, I may call Dr. David Topper, Advisor: 717.477.1124 or Dr. Paul Richer, Chair of the Enquinas University Institutional Review Board: 412-596-6326.

Parent/Guardian Signature

Date

Participant's Name

Date

Researcher's Signature

Date
APPENDIX C

Consent for Student Participation in a Research Study
Traditional Instruction in Reading Fluency
CONSENT FOR STUDENT PARTICIPATION IN A RESEARCH STUDY

Traditional Instruction in Reading Fluency

TITLE: The effects of explicit fluency-building strategies on the oral reading rates of first grade students

INVESTIGATOR: Holly Walter
1679 Lilac Road
York, PA 17408
Phone: 717.650.1922
E-mail: wormeh@metd.k12.pa.us

ADVISOR: Dr. David Topper
Shippensburg University
717.477.1124

SOURCE OF SUPPORT: This study is being performed in partial fulfillment of the requirements for the Doctor of Education degree in Educational Leadership at Duquesne University.

PURPOSE: Your child is being asked to participate in a research project that seeks to investigate the effect of explicit fluency-building strategies on the oral reading rates of first grade students. Students will receive traditional instruction in reading fluency from their classroom teacher. The instruction will occur from January 2008 through May 2008 and will occur within the hours of the school day. Northeastern School District has adopted the Dynamic Indicators of Early Literacy Skills Instrument as the most effective method for monitoring reading development. Therefore, DIBELS measurements will be utilized to gather data for this study. This instrument will be administered to your child two times during
the school year, once in January and again in May. The resulting data will be used to measure the growth in students' oral reading rates. I am requesting permission to use these oral reading scores and compare them to other students whose teachers used a different teaching strategy.

Your child's name will never appear on any research instrument. No identification of students will be made in the data analysis. Any identifiers, either direct or indirect, will be deleted to protect and ensure confidentiality.

These are the only requests that will be made of your child.

RISKS AND BENEFITS:

There are no risks greater than those encountered in everyday life involved in participating in this research project. Further, this project will contribute to the research literature on effective reading instruction.

COMPENSATION:

Your child will not be compensated for participation. Additionally, participation in the project will require no monetary cost to your child.

CONFIDENTIALITY:

Your child's name will never appear on any research instrument. All written materials will be stored in a locked file and will be destroyed five years after the completion of the research. All identifiers, direct or indirect, will be deleted to protect and ensure confidentiality.

RIGHT TO WITHDRAW:

You are under no obligation to consent to your child's participation in this research project. You are free to withdraw your consent at any time. There will be no adverse consequences to the participants who withdraw from this research project.

SUMMARY OF RESULTS:

Upon request, a summary of the results of this research study will be supplied to you.
VOLUNTARY CONSENT:

I have read the above statements and understand that my participation is voluntary and that I am free to withdraw my consent at any time. Accordingly, I certify that I consent to my child’s participation in this research project.

Please contact Holly Walker, Principal Investigator: 717.650.1922 if you have any questions about your child's participation in this study.

I understand that should I have any further questions about my child's participation in this study, I may call Dr. David Topper, Advisor: 717.477.1124 or Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board: 412-396-6326.

_____________________________  ___________________________
Parent/Guardian Signature     Date

_____________________________  ___________________________
Participant’s Name             Date

_____________________________  ___________________________
Researcher’s Signature         Date
APPENDIX D

Multi-Dimensional Fluency Scale
## Multi-Dimensional Fluency Scale

<table>
<thead>
<tr>
<th>Score</th>
<th>Expression and Volume</th>
<th>Phrasing</th>
<th>Smoothness</th>
<th>Pace</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reads words as if simply too get them out. Little sense of trying to make text sound like natural language. Tends to read in a quiet voice.</td>
<td>Reads in monotone with little sense of phrase boundaries; frequently reads word-by-word.</td>
<td>Makes frequent extended pauses, hesitations, false starts, sound-outs, repetitions, and/or multiple attempts.</td>
<td>Reads slowly and laboriously.</td>
</tr>
<tr>
<td>2</td>
<td>Begins to use voice to make text sound like natural language in some areas but not in others. Focus remains largely on pronouncing the words. Still reads in a quiet voice.</td>
<td>Frequently reads in two-and three-word phrases, giving the impression of choppy reading; improper stress and intonation fail to mark ends of sentences and clauses.</td>
<td>Experiences several “rough spots” in text where extended pauses or hesitations are more frequent and disruptive.</td>
<td>Reads moderately slowly.</td>
</tr>
<tr>
<td>3</td>
<td>Makes text sound like natural language throughout the better part of the passage. Occasionally slips into expressionless reading. Voice volume is generally appropriate throughout the text.</td>
<td>Reads with a mixture of run-ons, mid-sentence pauses for breath, and some choppiness; reasonable stress and intonation.</td>
<td>Occasionally breaks smooth rhythm because of difficulties with specific words and/or structures.</td>
<td>Reads with an uneven mixture of fast and slow pace.</td>
</tr>
<tr>
<td>4</td>
<td>Reads with good expression and enthusiasm throughout the text. Varies expression and volume to match his or her interpretation of the passage.</td>
<td>Generally reads with good phrasing, mostly in clause and sentence units, with adequate attention to expression.</td>
<td>Generally reads smoothly with some breaks, but resolves word and structure difficulties quickly, usually through self-correction.</td>
<td>Consistently reads at conversational pace; appropriate rate throughout reading.</td>
</tr>
</tbody>
</table>

-Zutell and Rasinski, 1991
APPENDIX E

Sample Lesson for Research-Based Strategy #1

Read-Aloud
Read-aloud

Introduction: special area, recite poem

Choose texts that will spark your students’ interests.

Body: Intro story- read aloud with expression and appropriate pausing and discuss events. Point to the words while reading the text. Point out the text’s prosodic features and typographical markings (punctuation marks, bold print, underlining, italics) that guide expressive reading. Read aloud and question children how the features help you read expressively.

Closing: recite closing poem

Put text in a special box to reread and revisit at a later time
APPENDIX F

Sample Lesson for Research-Based Strategy #2

Choral Reading
Choral Reading

Have a copy of the text for each student to keep in Poetry Folder.

Tips:
Model fluency by reading as a read-aloud first. Invite students to join in as they are able to recognize the words. “Keep your voice with mine.”

Discuss reading behaviors such as phrasing (reading several words together in one breath) and intonation (the emphasis on particular words or phrases).

Students must be able to see the text at all times. Patterned or predictable texts work especially well. They invite students to join in. Ex. Dr. Seuss and Shel Silverstein

Introduction: “Today, we will begin learning some poems, songs and chants. We are going to practice saying them and reading them together.”

Idea:
1. Recite alphabet as a conversation.
   ABCD? EFG! HI? JKL MN? OPQ. RST! UVWX. YZ!
2. Read the same sentence with different punctuation.
   Cows moo. Cows moo? Cows moo!
3. Read the same sentence placing stress on different words. I am happy. I am happy. I am happy.
4. Practice reading like your talking to a friend.
5. Write text on sentence strips. Show students how to cluster portions of text as compared to word by word reading. Hold up one strip at a time and have students read aloud.
6. Alternate slow and fast (lines, stanzas or paragraphs)
7. Alternate loud and soft
8. Alternate low and high voices
9. Emphasize key words and phrases (using louder and softer voice)
10. Pause for a specified number of “beats” before joining in the reading.
11. Clap at the end of certain lines, stanzas or paragraphs.
12. Refer to Websites for Finding Songs and Music sheet

Body:

Step 1: Hand out copies of text to students.

Step 2: Read the text aloud. Highlight one or two aspects of fluency, such as intonation or phrasing. Discuss and model the aspects by rereading the sentences or phrases pertaining to the fluency aspect.

Step 3: Do an echo reading of the text. Read aloud each stanza and have students repeat using the same pace, accuracy, and expression.

Step 4: Have students reread the text as partners, small groups or individuals.

Step 5: Provide time throughout the week for students to practice reading the texts. Circulate around the room and listen to students reading. Provide feedback regarding fluent reading.

Choral Reading Checklist

1. Read all the words that you know.
2. Say the words you do not know after others say them.
3. Read loud enough to be heard, but do not shout.
4. Read with feeling and pause at punctuation.
5. Follow the pace set by Mr(s). ________________.
6. Point to the words as you hear them.
7. Try to read the words better each time.
APPENDIX G

Sample Lesson for Research-Based Strategy #3

Reader’s Theatre
Reader’s Theatre

Introduction: “Ladies and Gentlemen, today we are beginning something very exciting. We are going to spend some time reading stories and then acting them out! It’s called Reader’s Theatre.”

Body:
Day 1: Teacher reads aloud three texts with appropriate fluency and expression. Discuss plot for comprehension enhancement. Do a brief mini-lesson on fluency. For example, ask why a reader would speed up or slow down when reading. Distribute copies of script to practice both at school and home.

Day 2: Practice highlighted scripts. Pass to the left so students can practice various roles. Provide coaching and feedback.

Day 3: Same as Day 2. Spend the last few minutes selecting parts for Day 5 performance.


Day 5: Performance of selected scripts by groups. Invite an audience: school personnel, other classrooms, peers, parents, etc.

Tips:
1. Model each part for students.
2. Work in small groups.
3. Provide instructional support for new vocabulary.
4. Position students in order of character importance in a semi circle at the front of the room for performances.
5. Have children hold scripts at chest level and try to make eye contact.
6. After performance have students say their names and the character they portrayed.
7. Videotape performances and review with the class.
   Discuss fluency observed.
8. Refer to Sources for Reader’s Theatre sheet.
9. Select enjoyable stories with lots of good dialogue.

~Adapted from Martinez, Roser & Strecker, 1999, The Reading Teacher, Vol. 52, No. 4. “I never thought I could be a star. A reader’s theatre ticket to fluency.”
APPENDIX H

DIBELS Oral Reading Fluency Assessment Integrity Checklist
### DIBELS® Initial Sound Fluency

**Assessment Integrity Checklist**

**Directions:** As the observer, please observe setup and directions, time and score the test with the examiner, check examiner's accuracy in following procedures, and decide if examiner passes or needs more practice.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1. | Performs standardized directions verbatim:  
   *This is means, flowers, pillow, letters, mouse begins with the sound /m/.* Listen, /m/ mouse. Which one begins with the sound /m/?*  
   **Correct Response:** Flowers begins with the sound /f/.  
   **Incorrect Response:** Flowers begins with the sound /g/ (goes to flowers). Listen, /f/ flowers. Let's try it again. Watch one begins with the sound /m/.*  
   *Pillow begins with the sound /p/. Listen, /p/ pillow. What sound does letters begins with?*  
   **Correct Response:** Letters begins with the sound /l/. Listen, /l/ letters. Let's try it again. What sound does letters begin with?* |
| 2. | Responds to correct and incorrect responses as directed. |
| 3. | Holds stopwatch and stopwatch so child cannot see what /s/ the reader. |
| 4. | Starts the stopwatch immediately after presenting the question and stops the stopwatch as soon as child responds. |
| 5. | Points to each picture while saying its name. |
| 6. | Moves through pictures and questions promptly and clearly. |
| 7. | Marks correct responses as 1, incorrect responses as 0. |
| 8. | If child does not respond in 5 seconds, scores question as 0 and present next question. |
| 9. | Follows discontinue rule if child has a score of 0 after first 3 questions. Records score of 0. |
| 10. | Uses correction procedures if child did examples correctly but does not answer correctly:  
   Remember to point/tell me a picture that begins with the sound (stimulus sound).* |
| 11. | Records the cumulative time from the stopwatch in seconds. |
| 12. | Records the number of correct responses. |
| 13. | Monitors score with the examiner, it has to within 1 point on the number of correct responses and within 2 seconds at the total time. |
| 14. | Calculates score correctly:  
   \[ \text{Score} = \frac{50 \times \text{Number Correct}}{\text{Seconds}} \]  
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