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Exploring implicit versus explicit methods of teaching phonemic awareness instruction to kindergarten students

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EXPLORING IMPLICIT VERSUS EXPLICIT METHODS OF TEACHING
PHONEMIC AWARENESS INSTRUCTION TO
KINDERGARTEN STUDENTS

A Dissertation
Submitted to the Graduate Faculty of the
Louisiana State University and
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In
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# TABLE OF CONTENTS

ABSTRACT ........................................................................................................................................ iv

CHAPTER

1 INTRODUCTION.........................................................1
   Statement of the Problem.................................1
   The Purpose of the Study.................................2
   Historical Overview of Reading......................2
   Significance of the Study.................................5
   Research Questions.........................................6

2 REVIEW OF THE LITERATURE...............................7
   Philosophical Perspectives...............................7
   Assessment....................................................10
   Instructional Practices..................................12
   Additional Areas of Interest...........................12
       No Child Left Behind Act.........................23
       National Reading Panel Report...............27

3 METHODOLOGY...................................................34
   Introduction...............................................34
   Design.......................................................34
   Participants...............................................40
   Instruments...............................................42
   Materials...................................................44
   Procedure..................................................45
   Data Analysis..............................................51

4 RESULTS............................................................53
   Introduction...............................................53
   Qualitative Data..........................................57
   Quantitative Data.......................................74

5 CONCLUSIONS.....................................................78
   Limitations................................................83
   Conclusions...............................................84

REFERENCES .....................................................86
APPENDIX
A LETTER TO SUPERINTENDENT .................. 90
B LETTER TO PRINCIPAL ....................... 91
C LETTER TO TEACHERS ....................... 92
D INTERVIEW QUESTIONS ....................... 93
E IRB APPLICATION ............................ 94
F CONSENT FORM ............................... 95
G LETTER OF ASSENT ......................... 96
H RESEARCH TERMS ............................ 97
I MATERIALS LIST ............................. 98
J STUDENT REGISTRATION FORM .......... 101
K DIBLES TEST ................................. 103
L RAW DATA .................................. 105
VITA ............................................ 106
Abstract

This research explored whether there was a difference between two methods of phonemic awareness instruction. Two groups of kindergarten students were selected. One group received an implicit method of phonemic awareness instruction. A second group received an explicit model of phonemic awareness instruction. Of particular concern were these questions: What is the impact of phonemic awareness instruction on reading achievement? How does phonemic awareness instruction delivered via an implicit instructional method differ from an explicit, scripted method of instruction in their respective impact on reading achievement? Triangulation between the qualitative and quantitative data support the finding that an explicit method of phonemic awareness instruction appears to provide greater academic achievement over an implicit method.
Chapter 1

Introduction

Statement of the Problem

The task of learning to read is not natural, simple or automatic. Reading involves the simultaneous cognitive processes of linking the abstractions of phonemes (sounds) to graphemes (letters) to morphemes (words). The ultimate goal of these processes is to arrive at comprehension (meaning). Since phonemes convey no meaning, these abstractions remain unclear for many Kindergarten students striving toward literacy.

Phonological awareness has been defined in *The Literacy Dictionary* (1995) as an awareness of sounds heard in words, syllables, onsets and rimes and phonemes. Phonemes are the smallest individual units of sound in language. Phonemic awareness is an awareness of sounds comprising the spoken word.

The insight that phonemes can be blended and segmented within a word is an abstract skill not easily attained. Phonemes are not consciously articulated as they are spoken. Rather they are subconsciously blended from one phoneme to another and pronounced as one word. Many students and some adults lack the ability to hear the basic phonemic awareness elements in words often resulting in reading difficulty. Tasks requiring phonemic awareness mastery have ranged from the simple such as rhyming, later to phoneme blending and ultimately to the more complex skill of isolating and deleting phonemes within words.
The Purpose of the Study

This study explores whether there is a difference between two methods of phonemic awareness instruction. Two groups of kindergarten students will be selected. One group will receive an implicit method of phonemic awareness instruction (Yopp, 1992; Wasik, 1991; Jerger, 1996; Adams, 1998). Implicit instruction is implied but not directly stated. Teachers who instruct phonemic awareness implicitly do not draw the associations between the letter (grapheme) and the sound (phoneme). The second group will be instructed in phonemic awareness using an explicit or direct instruction method (Griffith & Olson, 1992; Cunningham, 1990; Bradley & Bryant, 1985; Ehri and Wilce, 1987). Explicit instruction is teacher-directed, clearly-stated and often scripted instruction. This study will suggest whether one environment of instruction is more conducive to the acquisition of phonemic awareness over another.

Historical Overview of Reading Instruction

Learning to read without first mastering the connections between letters and sounds and how words are created are not a new concept. In fact, the Reading War that emerged in the 1980’s can trace its roots to an earlier era with Horace Mann. Horace Mann, a reformer in the 1800’s promoted teaching students meaningful words over letters and sounds.

Later on in the 1920’s, John Dewey expanded the whole word methodology to also incorporate real-life experiences. This meaning-first method of reading instruction dominated classroom instruction throughout the 1950’s. Reading instruction during this era utilized popularized “sight” and the “look-say” terminologies. This look-say reading
instruction prevailed in reading instruction until the early 1970’s producing texts such as the *Dick and Jane* readers and Dr. Seuss’s *The Cat in the Hat* series.

Two publications polarized reading instruction. Rudolf Flesch’s 1955 publication of *Why Johnny Can’t Read* struck down educational beliefs by espousing a need for phonics instruction in beginning reading instruction. He urged a return to phonics instruction and opposed the whole word approaches.

Jeanne Chall’s 1967 publication of *Learning to Read: The Great Debate* asserted that a code-emphasis (referring to the alphabetic code) method of reading instruction based on phonics produced superior results over a meaning-emphasis approach. The Great Debate label surfaced in Chall’s book as a result of her research emphasizing the disagreement between phonics-first advocates as opposed to those who felt students should be taught to read via whole-word, sight word or look-say approaches. Chall concluded that direct instruction in phonics was critical for students to gain reading fluency and word identification skills.

The 1983 publication of *A Nation At Risk* affirmed, “The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people.” *A Nation at Risk* focused on developing the talents of all students to their highest potential. Rather than focusing on minimum requirements, the document promoted setting high standards as goals for students to achieve.

*A Nation At Risk* charged the public to be a part of a “Learning Society”. This society should be committed to education not just because of its value for career goals but more importantly because education adds to the quality of life. The Learning Society offered a vision for life-long learning for all citizens.
Fifteen years after the publication of *A Nation at Risk* an action plan for reforming reading and math was developed in the document *Every Child Reading*. Released by the Learning First Alliance in 1998 *Every Child Reading* established as its goal every student reading well and every student graduating from high school as readers. In order to achieve these goals the Alliance proposed the following educational improvements,

1. Extensive professional development for teachers.
2. Additional staff to reduce class size.
4. The Establishment of high performance standards on district, state and national policies.
5. Parental support for educational improvement strategies.
6. Parents ascertaining that their children arrive at school ready to learn every day.
7. Revision of school organizations to produce more efficient classroom groupings and more effective use of Title I funds.
8. Additional research.

The Alliance cautioned that all of these reforms needed to occur simultaneously to significantly increase reading success for students. The Alliance divided the grade levels into two categories. *Every Child Reading* focuses on reading instruction in Pre-kindergarten, Kindergarten and first grade while Beginning Reading focused on Second grade and beyond. Within each category are specific suggestions for improvement. The Learning First Alliance emphasized incorporating a balance between phonics and
literature. They stated, “We cannot wait for research to answer every question while another generation of children falls behind.”

The Reading War set as rivals the phonics (code-emphasis) advocates against whole language (meaning-emphasis) proponents. Victor Froese (1991) refers to whole language as a learner-centered, literature-based method of reading instruction. He emphasized the focus needed to be on immersing students in meaningful reading and writing situations. Whole language proponents believed that there is a close relationship between listening, speaking, reading and writing. They further claimed that whole language builds on the less developed languages of reading and writing. “Extensive exposure to print and reading helps children internalize not only the correct spellings of words, but also the spelling patterns” (Daniels, Zemelman, Bizar, 1999).

Significance of the Study

It is of great consequence for educators everywhere to produce a literate work force. In order for a student to progress academically he needs to be able to read and understand what he’s read. If the skill of phonemic awareness reduces the incidence of reading delays and disabilities then it is a skill worthy of intense scrutiny (Griffith & Olson, 1992).

This study further claims distinction in its application of both qualitative and quantitative research paradigms. Classroom observations, document analyses and interviews reflected the qualitative research design. The quantitative paradigm was utilized in collecting and analyzing the results of the numerical data such as tests and questionnaires. The use of multiple research methods increased the breadth and depth of the investigation.

Research Questions

1. What is the impact of phonemic awareness instruction on reading achievement for kindergarten students?

2. How does phonemic awareness instruction delivered via an implicit instructional method differ from an explicit, scripted method of instruction in their respective impact on reading achievement?
Chapter 2

Review of the Literature

A search of the literature was conducted targeting the impact of phonemic awareness instruction specifically focusing on a Kindergarten population. The following topics were addressed; philosophical perspectives, assessment and instructional practices. In addition, The International Reading Association’s (IRA) position statement on Phonemic Awareness and the National Association for the Education of Young Children (NAEYC) position statement on Developmental Appropriateness were also discussed. The No Child Left Behind Act and the National Reading Panel report were the final two areas presented in the literature search.

Philosophical Perspectives

Research on reading acquisition has converged via many divergent disciplines. In addition to education, psychologists, medical scientists and neurophysiologists have all studied different aspects of reading.

Learning to read is a continuous developmental progress commencing at birth. According to Piaget (1970), learning parallels growth and development to a certain degree. Learning development occurs as a result of maturation (nature) rather than through environmental influences (nurture). Piaget’s cognitive development theory states that learning occurs through the processes of assimilation and accommodation. In assimilation the student absorbs the new learning. Through accommodation existing knowledge adjusts and is integrated to accommodate the new instruction. Moreover, according to Piaget, learning needs to proceed from the concrete to the abstract. Learning must commence at the concrete level in order for students to relate the new knowledge to
their existing background schema. More difficult concepts are then constructed which then scaffolds upon a foundation of simpler knowledge.

An additional tenet of Piaget’s theory of cognitive development asserts that for learning to occur, the student must be able to independently explore and manipulate his environment. Piaget believed that the student should be allowed to make some wrong discoveries since through the processes of assimilation he will gradually become self-correcting. The teacher’s role is to “stimulate and guide” (p.48) rather than teach. Piaget’s view of learning is consistent with those who hold the Constructivist paradigm. Learning occurs through a continuous progression of stages (Piaget, 1976).

John Dewey on the other hand, a pragmatist, held that there was a connection between the individual’s personal experience and education. In *Experience and Education* (1938) he wrote “education in order to accomplish its ends both for the individual learner and or society must be based upon experience-which is always the actual life experience of some individual” (p.89). Dewey held that students’ experiences in education were inappropriate in that what was learned in school was unrelated to the student’s lives outside school. He asserted that there was not an “absence of experience” (p.27) but a deficiency of quality in the educational experiences provided to students. He continued that students who were instructed via automatic drill resulted in students incapable of utilizing intelligent behavior when presented with new situations. In other words because of inappropriate instruction, (rote drill and repetition) received by the students, they were unable to think critically when encountering new concepts and ideas. (Dewey, 1938).
Lev Vygotsky offers a view opposing Piaget regarding child development. He believed that the development of cognition is affected by its use in the environment. Vygotsky was convinced that language was created in society.

In his opinion child development does not occur in slow and gradual changes instead it appears through “fits and starts” at critical times (Vygotsky, 1999, p.214). There are upheavals and lags in growth that create discord within the child.

According to Vygotsky, the greatest influence on a students’ education is the social environment around him. He held that the student is his own best teacher-his experiences are everything. The educational experience needs to be based on the student’s activities. The role of the teacher therefore, should be one of guidance, structuring educational opportunities for the students to explore. Vygotsky continues that there is no other way of teaching. The individual is the only one capable of changing himself. One cannot change another person. Therefore, Vygotsky concludes that each individual teaches himself through his life experiences.

Any discourse on Kindergarten students would be incomplete without the mention of Freidrich Froebel. Froebel designed the first kindergarten in 1837 in Germany. (Note: The correct German spelling of the word is kindergarden while this paper utilizes the American version). His purpose in establishing the Kindergarten was to provide an environment in which children’s creative play could be constructively organized. Froebel designed balls, wooden blocks, tiles, sticks and rings to demonstrate his belief that children learn by playing. It was Froebel’s conviction that these early play experiences were critical precursors to adult behaviors. Froebel felt that these experiences were vital for students to lead successful, productive and happy adult lives. Froebel believed that the
two most critical elements of education were creativity and freedom. He was particularly concerned with the ways that the educational system oppressed the students in its care. (see www.froebelweb.org)

Assessment

One widely-used assessment of phonemic awareness is the Yopp-Singer Test of Phoneme Segmentation. It was developed in 1988 and revised for classroom usage in 1995. The Yopp-Singer Test of Phoneme Segmentation identifies whether a student can distinguish the basic sounds (phonemes) within the spoken word. The Test consists of 22 items. 22 one-syllable words are pronounced by the teacher. The students’ score is the number of words correctly segmented into the individual phonemes. Students who score within the ranges of 17-22 are considered to be phonemically aware. Those capable of segmenting 7-16 items correctly are demonstrating emerging phonemic awareness. Students who segment none correctly or who are only able to segment 0-6 items correctly are considered to be lacking phonemic awareness ability. Yopp recommends these students should be given considerable training focusing on the spoken sounds of language. The test is individually administered usually requiring 5-15 minutes per student (Yopp, 1995).

Torgesen (1998) reviewed three phonemic awareness tests: The Phonological Awareness Test (Robertson & Salter, 1995), The Test of Phonological Awareness (Torgesen & Bryant, 1994) and The Yopp-Singer Test of Phoneme Segmentation (Yopp, 1995). Torgesen’s intent in analyzing these tests was to highlight those phonemic awareness tests that are best suited for early identification of phonemic awareness ability.
The Phonological Awareness Test (Robertson & Salter, 1995) provides a test of 5 different measure of phonemic awareness as well as an assessment for rhyming ability. The five phonemic awareness tasks that are assessed include phoneme segmentation, phoneme isolation, phoneme deletion, phoneme substitution and phoneme blending.

The second phonemic awareness test reviewed was The Test of Phonological Awareness (Torgesen & Bryant, 1994). This assessment is designed for group administration of students in kindergarten and first grade. The test requires students to recognize which words (represented by pictures) begin with the same initial sound. The first grade version requires students to compare the ending sounds in words.

The third test reviewed by Torgesen was the Yopp Singer Test of Phoneme Segmentation (Yopp, 1995). The test is composed of 22 items and is individually administered. It requires students to isolate and pronounce individual sounds in words.

The final phonemic awareness assessment device to be discussed is the DIBELS. DIBELS—Dynamic Indicators of Basic Early Literacy Skills (2002) were designed to assess three areas influencing early literacy. The three measures include phonological awareness, alphabetic principle and fluency with connected text. The measure of phonological awareness component includes two subskill areas: initial sounds fluency and phonemic segmentation. Initial sounds fluency refers to the ability to identify and produce the beginning sounds of words. Phoneme segmentation demonstrates ability to reproduce individual sounds within words. The measure of alphabetic principle addresses recognition of nonsense word fluency. Nonsense word fluency assesses knowledge of letter-sound correlation as well as the ability to blend words to create new nonsense words. A third measure addressed in the DIBELS assessment measures fluency
with connected text. Oral reading fluency assesses the ability to fluently read connected text in grade level materials (DIBELS, 2002).

**Instructional Practice**

Extensive research substantiates the pivotal role phonemic awareness exerts on future reading achievement (Stanovich 1986, 1993/1994; Lundberg, Frost & Petersen 1988; Yopp 1988, 1995; Juel 1988; Blachman 1991, 2000; Griffith & Olson 1992; Snider 1997; Moates 1999; Wasik 2000). Young children master the skill of manipulating the 44 sounds of spoken language long before contact with organized instruction. For many the transference of phonemic awareness to the alphabetic code remains elusive. Yet research indicates that phonemic awareness remains an essential skill serving as a precursor to reading acquisition. (Sensenbaugh, 1996). Indeed, measures of phonemic awareness are a more reliable indicator than measure of intelligence (Griffith & Olson 1992; Yopp 1992; Stanovich 1993; Snider 1997).

Lundberg, Frost and Petersen’s (1988) longitudinal experiment involved a total of 235 kindergarten students who were attending kindergarten in 12 different districts in Denmark. Training involved daily sessions of 15 to 20 minutes of instruction in metalinguistic exercises and games. These instructional sessions persisted over an eight month period. The goal of these exercises and games was to guide the students in locating and attending to the phonological patterns in language.

The instructional program in this experiment contained a sequential set of phonological awareness games. The first instructional component was listening games, next was rhymes and third was syllable games. These were followed by a focus on phonemes in the initial position of words. The final focus was placed on the medial
position phonemes in words. During the entire phoneme training sessions there was no instruction in the alphabetic principle.

All students were pre and post-tested on seven phonological tasks. The tasks included: rhyme, word segmentation, syllable synthesis, syllable segmentation, initial phoneme, phoneme segmentation and phoneme synthesis. In this experiment, many of the games introduced early in the training were sustained for the rest of the study’s time frame.

Significant differences in posttest scores between the experimental and control groups were found on all measure of phonological awareness. The phonological awareness task requiring phoneme segmentation yielded the most compelling differences. On this measure the experimental group outperformed the control group. Additionally, the experimental group demonstrated greater growth in spelling and reading although the difference in reading was marginal.

Several findings arose as a result of this investigation. One of the most notable findings revealed that phonological awareness training could be developed prior to formal reading instruction. In addition, this training can be implemented independent of reading instruction. Furthermore, explicit instruction rather than specific encounters with the alphabetic principle appear to be required.

Finally, when student performance was compared at the end of the first and second grade years, the experimental group outperformed the control group in phonemic awareness measures. Two tasks, initial sound analysis and phoneme segmentation yielded a strong difference. These positive results demonstrated the permanence of the treatment effects over the long term.
Juel (1988) conducted a longitudinal experiment on 129 students beginning in 1st grade and culminating with 54 of the original students in 4th grade. The first critical issue explored whether the same students continued to remain at risk for reading year after year. Finding emerging from this study indicated that those students who are poor readers in first grade continue to remain poor readers in fourth grade. This study illustrated the critical nature of phonemic awareness on future decoding ability. Juel postulated that students needed to gain some phonemic awareness ability in order to improve in decoding and therefore become capable readers. According to Joel both phonemic awareness and phonics are mutually dependant upon one another. As a consequence, the first graders who failed to develop good word recognition strategies began to dislike reading and read significantly less than the good readers. She referred to the cycle first proposed by Stanovich in 1986 and known as the “Matthew Effect”. Stanovich coined the term after finding that good readers read more and became stronger readers and poor readers read less and became more disabled readers.

In order to facilitate phonemic awareness acquisition in young students, many researchers have proposed specific methods for instruction. Griffith & Olson (1992) suggest that many activities currently practiced in early education classrooms are already incorporating phonemic awareness elements. They recommend the following types of activities;

- Exposing students to literature that emphasizes the sounds in spoken language
- Read literature that incorporates rhyme
- Incorporate daily writing experiences
- Provide explicit instruction in segmentation
Integrate phonemic awareness activities within a context of authentic reading and writing activities.

Yopp (1992) contends that phonemic awareness instruction needs to be embedded in a playful, fun climate. She suggests that teachers allow students to experiment with the sounds of language. Yopp advocates storytelling, poetry, word games, riddles, songs and games as some of the fun opportunities for engaging students. Yopp presents specific categories of phonemic awareness activities that should be incorporated into reading programs. These tasks include sound matching, sound isolation, blending and segmenting, sound addition and deletion and sound substitution. Yopp considers sound segmentation one of the most challenging phonemic awareness tasks because it requires the student to isolate all the spoken sounds within words.

Sound matching refers to having students identify words beginning with a certain sound. For example, students are shown pictures of a snake, pig, and rat, and then asked to identify which one begins with the /s/ sound. Sound isolation is the opposite of sound matching and refers to students being asked to isolate a sound at the beginning, middle and end of a word. For instance, which sound begins the words boat, bear and bat? Sound blending requires students to combine phonemes in order to create words. Such as, take the sounds in c/a/t and blend them to create the word cat. Sound addition, deletion or substitution demonstrates the students’ ability to supply additional sounds in words. A sample sound addition activity is for the student to add a sound to word like if you have the word at – add a p/a/t and what word is produced? To delete a sound would be if given the word pat – delete the /p/ and what is the new word? Sound substitution is when one sound is substituted for another as in the word pat, substitute the /p/ with a /s/
and the new word becomes sat. For example, in the word, table the sounds composing the word include t/a/b/l (Yopp, 1992).

The instructional methods proposed by Wasik (2001) suggest an avoidance of rote drill and repetition – type activities. Instead Wasik promotes phonemic awareness tasks that are fun and motivational to students. Some additional instructional strategies she proposes include:

- Reading stories aloud which emphasize alliteration
- Read alphabet stories that directly state the letter then provide words/pictures beginning with that letter
- Provide exposure to nursery rhymes, poems, finger plays and jingles while discussing similarities within words
- Encourage students to create their own poems, rhymes and jingles
- Provide opportunities for student writing

Jerger (1996) reiterates Yopp’s contention that phonemic awareness tasks need to be conducted while focusing on playful, game-like strategies. Additionally, she agrees that emphasis needs to placed on reading literature that emphasizes rhyming and alliteration. Jerger asserted that daily writing experiences should allow opportunities for students to incorporate invented spelling. She continued that students needed to be encouraged to create sentences illustrating the concept of alliteration. Finally Jerger posits the value of playing oral rhyming games where sounds are added, substituted, blended and deleted. These games can include the students clapping or tapping the sounds or syllables in words.
Adams (1998) concurs in the types of practices that need to guide phonemic awareness instruction. She supports using oral games that allow students the opportunity to play with the sounds of language. She encourages listening games where students attend to the sounds in oral games and activities. Additional activities provided by Adams include rhyming, oral sound blending, addition, deletion and segmentation. She also supports tasks involving students in clapping the concepts of syllabication.

Phonemic awareness instruction in the classroom needs to display three central characteristics according to Yopp & Yopp (2000). Citing the IRA and NAEYC statement on developmentally appropriate practice, they report that instruction in phonemic awareness needs to be situated in child appropriate settings. In an earlier paper Yopp (1992) refers to phonemic awareness instruction as needing to be performed in a playful, fun environment where experimentation with language is encouraged. A second characteristic of phonemic awareness instruction is that instruction needs to be focused and purposeful. Phonemic awareness instruction needs to be intentional and goal-oriented. Lastly, Yopp & Yopp state that phonemic awareness instruction must be included within the context of authentic reading and writing activities.

Additionally, Yopp & Yopp propose a developmental sequence of phonemic awareness activities. This sequence begins with rhyme, and then moves on to syllabication, onset and rime and culminating with phoneme activities. For example, rhyming activities could include finding words rhyming with cat-rat-hat. Activities involving syllabication may include for instance, students clapping the syllable units in Ma-ry. Phonemic awareness activities centering on onset may include – given the word
brown, /br/ would compose the onset. The final stage in the sequence proposed by Yopp & Yopp involves the focus on the phonemes within words, as in the word at=a/t.

Yopp & Yopp were reluctant to suggest specific time allocations for phonemic awareness instruction. They expressed the concern that rigid timelines provide little regard to individual differences. In their opinion, of more consequence than time is the quality of instruction and its instructional appropriateness to each of the individuals within the classroom.

“Direct instruction occurs when the teachers assume a highly structured, active and dominant role in which teacher talk is relied upon to ensure that students interpret the work in the intended way and achieve the desired outcome” (Duffy & Roehler, 1986). Direct instruction is explicit, skills-oriented and often scripted instruction. This teacher-directed type of instruction is also referred to as explicit teaching. Direct instruction, as it applies to early reading, focuses explicit attention on the relationships between the English language phonemes and their written representations.

Cunningham’s (1990) experiment sought to ascertain two salient points surrounding phonemic awareness instruction. The first area of investigation was concerned with discovering whether phonemic awareness instruction affected the students’ subsequent reading ability. The second focus of this study investigated specific instructional methods of teaching phonemic awareness instruction.

There were 42 kindergarten students and 42 first grade students participating in this experiment. The students were randomly assigned to the experimental and control groups based on age and pretest scores on achievement and aptitude tests. The tests used included the Metropolitan Reading Achievement Test (Readiness Level 1 and Primer)
and the Otis-Lennon School Ability Test (Primary). Students were grouped into three
groups of 14 kindergarten classes and three groups of 14 first-grade students.

Students were trained for 10 weeks. Training consisted of groups of 4 or 5
students trained twice per week for 15 to 20 minutes. In the experiment instruction
focused on phonemic awareness and the instructional core of each program was identical
with regard to the acquisition of phonemic awareness. The control group received a type
of instruction focusing on their exposure to literature. Students in both experimental
groups received instruction in phonemic segmentation and blending.

One of the experimental groups received an instructional method described as a
skill and drill method. After the phonemes were introduced, students practiced the skill
on work pages. There was no additional practice in applying the phonemic awareness
skill on other reading activities.

The second experimental group was described as the meta-level treatment
method. This group received instruction on phonemic awareness. After the skill was
taught students were directed to link this skill to the activity of reading. Students were
instructed to reflect on their thinking pertaining to how they could use phonemic
awareness and apply it to other reading situations. They were to reflect on how they
could use the phonemic awareness skill to decipher an unknown word.

The control group listened and responded to stories. Following a story, students in
the control group discussed what they liked and disliked about the story. The control
group received the same amount of time on phonemic awareness instruction as the two
experimental groups.
Findings from Cunningham’s experiment indicate that the method of phonemic awareness instruction does affect future reading ability. Students who participated in the segmenting and practicing phonemic awareness activities performed significantly better than those participating in the skill and drill. Cunningham postulated that the explicit versus implicit nature of phonemic awareness instruction support the hypotheses that students learn the skill best through direct instruction.

Bradley and Bryant (1983) reinforced the connections between the explicit teaching of the phoneme sound/symbol connections and the written symbol. The intervention included 40 individual sessions that spanned a two-year period. In this experiment, students were assigned to one of four groups.

The first group was trained with colored pictures (visual cues) sharing the same sound. In addition, this group was taught that the same word could share the same beginning sound (bud, bun), middle sound (cot, dot) and ending sound (top, pop).

The second group received the same instruction as the first with the additional use of plastic alphabet letters. The plastic alphabet letters were used to demonstrate the connections between the letter and the sound. The third and fourth groups were the control groups. In the third group students received the same visual cues as group one. Additionally, this group was also instructed that words could be classified in many different ways. For instance, pig and sparrow (animal category); and pig and hen are (farm animals). However, the third group was not shown any colored pictures so this group was required to conceptualize the words. The fourth group received no intervention. While group one demonstrated consistently higher reading and spelling score gains than the third group, these scores were not repeated in the posttest. Findings
from this longitudinal study indicate that the most effective phonemic awareness
instruction must include explicit attention to the connections between the spoken sound
elements and the written symbol.

O’Connor, Jenkins, Leicester and Slocum (1993) experiment involved forty-seven
4, 5 and 6 year old students. The students were classified as developmentally delayed.
Many of the students had significant language delays, some had physical handicaps, some
were classified as mentally retarded and some exhibited behavioral disorders.

The experiment included an explicit and systematic instructional plan for teaching
rhyming, blending and segmenting. The experiment followed a detailed, scripted
instructional plan. All students were randomly assigned to one of the three treatment or
control groups. The three groups were identified as blenders, segmenters and rhymers.

Blenders were instructed to blend 2 and 3 phonemes as one continuous sound
unit. In this group students were first asked to listen as the instructor presented the
phonemes in the words slowly. Then the students were directed to quickly blend the
sounds into the stated word. A second skill presented to the blender group involved
students blending the phonemes of words where the phonemes were individually
pronounced.

The segmenter group began by separating two and three phoneme words while
slowly stretching each sound. Next they were instructed to separate words into onset-
rieme segments. (Onset is the consonants preceding the first vowel in a syllable. Rimes
begin with the first vowel and any consonants that follow in the word). The third task
encountered by the segmenter group involved the students pronouncing all the sounds in
the presented words and isolating the first sound.
The third group was the rhymers. They were exposed to words containing rhyme patterns. They were given group practice. The students in the control group listened to the stories read by the instructors.

Results were obtained from two types of tests. One test utilized the items that were used during the training sessions to indicate mastery over trained subject matter. The other test was on items that did not appear during instruction (to demonstrate generalization to untaught tasks). One of the critical findings to emerge from this experiment involved the correlation between mental age and post-training of phonological awareness. This experiment found that mental age accounted for a significant post-test variation for the trained students. Students who were not trained exhibited a different pattern of variance. All of the rhyming and blending post-test differences were attributed to mental age variations.

Additional Areas of Interest

The International Reading Association (IRA) issued a position statement on Phonemic Awareness and the Teaching of Reading in 1998. This statement focused on clarification of issues surrounding phonemic awareness. The position statement defines phonemic awareness as an understanding about the smallest units of sound (phonemes) that compose speech. The IRA statement makes the distinction between phonics being a written/visual skill while phonemic awareness is an auditory skill. The statement further explains that phonemic awareness and phonics are not the same. Phonics refers to the understanding of the relationship between printed letters and their sounds.

The IRA position statement focused on longitudinal studies. The studies lend credence to phonemic awareness acquisition serving as a reliable indicator of successes in
learning to read. Lastly, the statement stresses the critical need for teachers to become aware of phonemic awareness research and its significance to reading acquisition. Teachers are also urged to incorporate phonemic awareness activities into their existing reading programs.

The National Association for the Education of Young Children (NAEYC) has compiled a position statement titled Developmentally Appropriate Practice in Early Childhood Programs. The NAEYC asserts that students need to learn in a developmental continuum at their own pace. Four key areas characterize a curriculum that is based on Developmentally Appropriate Practice (DAP): curriculum, adult interactions, contact between home and school and developmental assessment.

Three core components underlie developmental appropriateness; age appropriateness, social and cultural appropriateness and individual appropriateness. Age appropriateness refers to the developmental age of the students. Individual appropriateness relates to the unique individual differences within learners. Social and cultural appropriateness deals with the personal history and life experiences inherit within each individual.

When making curriculum planning decisions DAP calls attention to the need for considering the whole child when planning. They explain that learning needs to be interactive as the student interrelates with his/her environment. Additionally DAP Experiences are concrete, real and meaningful to students.

No Child Left Behind Act

The No Child Left Behind Act was signed into law on January 8, 2001. NCLB targets low-income, disadvantaged student populations. No Child Left Behind provides
an action plan as well as a timeline and steps detailing procedures to assist schools improve. This law re-authorizes the 1965 Elementary and Secondary Act (ESEA).

ESEA distributed money to school systems based on the poverty level, to fund compensatory educational programs-primarily in reading. These compensatory programs were designed to supplement regular classroom instruction of disadvantaged students. The 1965 ESEA policies were specifically designed to more equitably provide educational opportunities to impoverished students.

Title I of the ESEA targets over $10 billion in financial assistance to schools educating low-income students. Schools may utilize the Title I funding in one of two ways, either in School wide programs or Targeted assistance programs. Those schools composed of 40% or more students from low-income families may adopt school-wide programs to raise the achievement of low-achieving students. Schools who are ineligible for the school-wide programs are required to use the Title I funds to target low-achieving students. The NCLB Act focuses on 4 basic educational reforms; greater accountability on schools to provide results, increased flexibility for states, school districts and local schools in their use of federal funds, more options for parents of disadvantaged students and an emphasis on research-based teaching methods.

The No Child Left Behind Act is designed to demonstrate that states are assessing what students know in reading and math in grades 3-8. Annual school report cards will report comparative scores on the performance of schools. Schools that do not demonstrate yearly progress toward the state goals will be placed in corrective action. Continued lack of progress will result in restructuring. On the other hand, schools that meet or exceed objectives will be eligible for academic achievement awards.
In exchange for greater accountability, states and school districts will be allowed greater flexibility in how they can use the federal funds. The intent is to place greater decision-making powers at the state and local levels where the educators are most in-touch with student needs.

NCLB provides options for parents when their child’s schools fail to improve. Parents of students in schools that fail to improve in two years are free to transfer their child to a better performing public school in their district—at the school district’s expense. A second option is for parents to request tutoring, after-school services and summer school.

The No Child Left Behind Act places special emphasis on determining which educational programs and practices have clearly demonstrated effectiveness through rigorous scientific research. Federal funding will support educational programs and teaching methods that improve student improvement. The NCLB Act provides grants to states and local systems which systematically and explicitly teach the following 5 key components of Reading; phonemic awareness, phonics, fluency, vocabulary and comprehension.

No Child Left Behind places an increased emphasis on Reading, especially for young children. The goal of the Act is for all students to read at or above the third grade reading level by the end of third grade. The NCLB Act will support scientifically based reading programs in the early grades under the new Reading First Program. In preschool, the program is titled Early Reading First.

Reading First is a grant program that issues revenue to states based on the number of students between the ages of 5 to 17 whose families score at or below the poverty
level. Each state submits their application to the U. S. Department of Education. Grants are issued to qualifying states that then award sub grants to the local school districts. The specific amount to be awarded each school district is based on the preceding year’s Title I funds and to the percentage of K-3 students reading below level.

Each state receiving Reading First awards are responsible for:

1. Developing a plan detailing how they will assist school districts to improve reading instruction.

2. Provide technical assistance to districts in the identification of instructional assessments, programs and materials.

3. Offer statewide professional development strategies to improve reading instruction.

4. Develop methods for evaluating Reading First.

The goal of the Early Reading First program is to prevent reading failure by providing high quality early education to young children particularly children from low-income families. The National Center for Education Statistics estimates that 56% of beginning kindergarten students risk school failure. These statistics are based on factors including yearly family income and low parent education. Additionally, according to NCLB it is estimated that 61% of beginning kindergarteners cannot recognize the beginning sounds of words and 83% cannot identify the ending sounds of words.

Moreover, Early Reading First asserts that all early education programs need to address all of the developmental stages of early childhood. These stages include the cognitive, linguistic, social, emotional and physical. The NCLB document maintains that while early educational programs have adequately addressed the social, emotional and
health needs of students, the cognitive and language domains have not been adequately addressed. Specifically, Early Reading First is designed to improve phonological awareness and vocabulary development.

Key requirements of Early Reading First are that grantees must use funds to provide preschool students with high-quality oral language and literature-rich environments. Professional development for staff is to be based on scientific evidence focusing on developing student’s language and cognitive skills.

National Reading Panel Report

The National Reading Panel Report: Teaching children to read investigated the most effective ways of teaching children to read. This national panel was directed by Congress in 1997 to formulate a report presenting the panel’s conclusions. Congress then directed the National Institute of Child Health (NICHD) to collaborate with the Secretary of Education, Richard Riley, to convene a National Research Panel (NRP). The NRP consisted of 14 members, and was composed of scientists in reading research, delegates of colleges of education, reading teachers, educational administrators and parents.

The NRP met with the public in a series of information-gathering sessions to discover an understanding of the issues critically important to the general public. It was the belief of the NRP that these sessions were necessary since the panel’s results were to be utilized by these beneficiaries of the research.

Some reoccurring reading topics emerged during these meetings. They included:

- The role of parents in language and literacy development.
- The importance of early detection of reading difficulty.
• The significance of phonics, authentic literature and phonemic awareness in reading instruction.
• The importance of having this research direct actual reading instruction within schools.
• The need for scientifically based research on different types of reading instruction.

As a result of the public hearings the NRP created 5 major subgroups to investigate: alphabetic (phonics and phonemic awareness), reading fluency, reading comprehension, teacher education and computer technology. The National Reading Panel’s report was released in April 2000.

The panel reviewed research from 100,000 reading research studies published since 1966 and an additional 15,000 that were published before that time. Due to the enormous volume of research, the panel then narrowed the studies down to experimental and quasi-experimental studies. Additionally, the panel specified that the studies had to contain stringent scientific standards in attaining their conclusions.

Alphabetic

The chapter on Alphabetic focused on an analysis of both phonemic awareness and phonics. The panel’s findings regarding phonemic awareness indicate that training led to improvement in reading and spelling. Additionally, the panel found that treatment effects persisted beyond the end of training.

The National Reading Panel concluded that a program of systematic phonics instruction improved the reading abilities of students. Furthermore, the panel concluded that systematic phonics instruction is more effective than instruction that occurs
incidentally. Additional findings indicate that systematic phonics instruction also improved students’ spelling ability.

**Fluency**

A student who reads fluently can read orally with speed, accuracy and appropriate expression. Reading fluency is one of many critical requirements for reading comprehension. The NRP report identified guided repeated oral reading and independent silent reading as the two reading strategies improving reading fluency. Guided repeated oral reading refers to students reading orally with guidance from the teacher. Independent silent reading does not include teacher guidance or feedback.

The NRP concluded that guided repeated oral reading with teacher, parent or peer guidance exhibited a significant impact on word recognition, fluency and comprehension across the grade levels. The panel addressed the impact of independent silent reading had on fluency, vocabulary development and reading comprehension. Their analysis revealed the inadequacy of studies of studies scientifically validating independent silent reading on fluency and other reading skills. Conclusions drawn by the panel indicate a need for additional scientifically rigorous research designed to assess the effectiveness of independent silent reading on reading fluency.

**Reading Comprehension**

The NRP research found many strategies assisted in comprehension. Three specific strategies were isolated for investigation by the NRP. They include; vocabulary instruction, text comprehension instruction and teacher preparation in comprehension strategies instruction.
**Vocabulary Instruction**

The panel found that vocabulary instruction yielded gains in comprehension. They also discovered that vocabulary could be learned within the context of reading or in conversational listening. The skill of learning words prior to reading was found to be helpful as was the use of the computer in vocabulary instruction.

The NRP concluded that vocabulary should be taught both directly and indirectly. Strategies such as repetition and multiple exposures to vocabulary are critical tools aiding comprehension. Students need to be actively engaged in vocabulary learning. Finally, the panel stressed that a multitude of vocabulary instruction strategies need to be utilized to optimize vocabulary learning. Over-reliance on one method does not result in gains in vocabulary instruction.

**Text Comprehension Instruction**

A search of the literature revealed 7 types of comprehension instruction strategies, which appeared to be most effective. These include:

1. Comprehension monitoring in which students actively monitoring their understanding.
2. Cooperative learning involves students working together to learn the reading strategies.
3. Graphic/semantic organizers such as story maps where readers create visual images of the material.
4. Question answering involves students answering questions posed by the teacher.
5. Question generation requires students to ask themselves questions as they read.
6. Story structure as when students are taught to use the structure of the story in an effort to recall critical story elements.

7. Summarization is where students are taught how to incorporate ideas and generalizations from the text.

The findings of the panel indicate that a combination of reading comprehension strategies is most effective for improving text comprehension. The panel indicated that further research is needed in several areas. Namely, additional research is required on how to teach teachers to use the comprehension questions. Furthermore, research is need on determining which strategies are most effective for which age groups.

**Teacher Preparation and Comprehension Strategies Instruction**

Two major approaches to teaching comprehension strategies were reviewed by the NRP. They include the Direct Explanation and the Transactional Strategy. In the Direct Explanation approach the teacher explicitly clarifies the reasoning processes involved in reading. Teachers guide students to view reading as a problem-solving task. Additionally, students are instructed to learn to think strategically about solving comprehension problems while they are reading. Transactional Strategy Instruction involves the teachers explaining their thinking processes. Teachers model their own thinking processes while they are reading to demonstrate this method. The NRP findings indicate a need for further research on teacher instruction in reading comprehension.

**Teacher Education and Reading Instruction**

The National Reading Panel investigated the quality and importance of teacher education. Three questions guided their research.

1. How are teachers instructed to teach reading?
2. What does the research indicate about the effectiveness of this instruction?

3. How can the research be applied to improve reading instruction?

The NRP found that there were too few studies to generalize into conclusions. They studied the research on preservice and in-service instruction. They found significantly higher student achievement as a result of in-service professional development. They cautioned however, that there were too few studies and only a slight number dealt with validating long-term continuation of gains.

**Computer Technology and Reading Instruction**

Since this is a relatively new field and few studies exist dealing with computers in reading instruction the NRP was unable to construct generalizations. They instead issued some general statements. They found that the studies indicate positive results from the use of computers in reading instruction. The panel cited the usage of computers as word processors indicated a promising trend in reading instruction. They reasoned that reading instruction is most effective when it is incorporated in combination with writing instruction.

While the NRP is encouraged by the research on computers in reading instruction they cite a need for extensive further research. They reported that there was too few studies to generate scientifically supported conclusions.

**Conclusions of the National Reading Panel Report**

Significant findings regarding the most effective methods of teaching reading resulted from the panels’ investigation. The most significant finding of the panel was the determination of the most effective way to teach reading involves a combination of reading methods. Furthermore, the panel concluded that the research supports the
systematic and explicit teaching of both phonemes and phonics. The panel asserted that the systematic and explicit teaching of phonemes and phonics improved students’ reading and writing abilities.

The most critical finding of the NRP report regarding reading fluency involves guided oral reading. They found that guided reading aided students across the grade levels in learning new vocabulary, reading accurately, and also assisted in reading comprehension. Finally, the panel concluded that since students vary in reading abilities there is no single approach to teaching phonics should be employed in all cases. The National Reading Panel report found that it was imperative that teachers be trained in the different approaches to teaching phonics and in how to personalize these approaches to specific students.
Chapter 3

Methodology

Introduction

The task of learning to read is a difficult process for some students. Many students and some adults lack the ability to hear the basic phonemic awareness elements in words often resulting in reading difficulty. This study investigated whether there was a difference between two methods of phonemic awareness instruction. In order to explore the intricacies involved in learning to read it is imperative that the research methodology be compatible with the intent of the investigator.

Design

Qualitative research differs philosophically from quantitative research in the belief that meaning varies both in perspective and in context. Qualitative researchers believe that since people and groups possess multiple perspectives and contexts there are varied meanings in the world. To the qualitative researcher no one meaning is more valid than another.

Qualitative research excels at generating in-depth, detailed investigations of variables that are discussed in narrative formats. Additionally, qualitative research centers on the subjects and seeks in-depth understandings using a more flexible approach to data gathering and analysis. Hence, qualitative studies provide multiple methods of investigation that are interactive, humanistic and occur in natural settings. Strengths of qualitative research methods are that this method is both exploratory and flexible. Research questions emerge as the investigations are being conducted.
Another distinction separating qualitative research from quantitative lies in the fact that qualitative research is based on inductive logic in which specific categories of interest emerge, as research is ongoing. Inductive analysis refers to the patterns, themes and categories emerging from the data rather than being stated prior to the data collection and analysis stage. Inductive reasoning is based on the premise of specifics to generalizations. That is, generalizations are developed from specific observations.

The role of the qualitative researcher is often multifaceted. The researcher functions simultaneously as a data collector and a data interpreter. Qualitative research begins with a concept then establishes themes for inquiry as questions emerge during the observations.

All research methodologies need to have provisions for assuring the worthiness of the conclusions. While the specific terms vary between qualitative and quantitative methodologies, the functions are essentially the same. Terms such as trustworthy/validity; credibility/internal validity; transferability/external validity; dependability/reliability; conformability/objectivity are applied to both qualitative and quantitative research. Appendix H illustrates terms employed in evaluating the authenticity of qualitative and quantitative research.

Trustworthiness refers to the extent the findings have truth-value. Findings deemed trustworthy are considered worthy of consideration. Additionally, authenticity of the findings is an assurance that the findings are indeed trustworthy.

Credibility alludes to the plausibility of the investigation. To be credible the investigation must demonstrate that the investigation was conducted in a manner where the subjects were accurately identified and described. Further credibility can be attained
by demonstrating that the ideas describing the study conform to the data selected to
gather the information.

Transferability is the extent to which the results can be generalized to other
contexts beyond the study. To have transferability the results must be able to be
generalized to those within the study as well as contexts beyond the original study.

Dependability refers to whether the procedure of the study can produce
consistently stable results despite time and across researchers and methods. The degree
to which a study consistently measures what it is intended to determines its dependability.
Dependability is expressed as a co-efficient ranging from 0.0 to 1.0. A high co-efficient
indicates high reliability.

Confirmability reveals whether the conclusions can be corroborated by other
researchers. One of the issues involved in confirmability include whether or not the
inferences are logical. Another issue pertains to whether or not the conclusions are based
on the subjects and the inquiry or as a result of inquirer bias.

The principal sources of data collected in qualitative research include
observations, interviews and document analysis. The types of documents collected
include personal and official documents, photographs, drawings, e-mail and informal
conversations. The most commonly utilized sources in qualitative inquiry are the
observations and interviews.

During the observations the role of the researcher can take many forms. The
researcher’s role may be that of a participant observer, a non-participant observer or a
combination of the two. In participant observations the researcher participates fully in
the situation being investigated. Whereas in non-participant observations, the researcher
is not directly involved in the situation. In non-participant observations, the researcher observes but does not get involved in the investigation. Combinations of both approaches can also be employed in the same study. For instance, the researcher may be a non-participant observer at the outset of the investigation and a participant observer at the culmination of the study.

Interviews are encounters between two people that focus on the one person obtaining information from the other person. Interviews allow the researcher to secure information not readily apparent from the observations. Interviews can provide in-depth data about knowledge, attitudes, feeling, interests, experiences, concerns or values.

Interviews can vary in many ways. They may occur as a one-time interview or may include multiple interviews with the same person. Interviews can occur individually or within groups. They can be structured and include scripted questioning formats or unstructured where questions emerge during the interview. Finally, interviews can be formal and planned or informal and unplanned.

A case study provides an in-depth examination of an individual, group, organization or program over a specified time. The overall aim of a case study is the holistic understanding of the process being investigated. Data compiled on individual cases include information derived from all the observations, interviews and the document analysis.

One of the critical characteristics of case study research is that cases need to be bounded, that is, boundaries need to be clearly defined. Boundedness refers to what is to be excluded or included in a study. Examples of case study boundaries may include social groups, time and activity, programs or event.
Yin (2004) defined the case study as a comprehensive research strategy involving design, data collection and data analysis. Case studies investigate phenomenon within their natural settings. Yin argued that the case study method is not just a data analysis or data collection strategy. He emphasized that case studies are more accurately described as a comprehensive research strategy involving both data collection and analysis.

Yin (2004) proposed three analytic strategies to be applied in case analysis. They include the reliance on theoretical propositions, considering rival explanations or the use of a case description. Yin promoted the necessity of selection of the strategy prior to data collection.

In the theoretical propositions method, analysis relies on the original theory upon which the study was based. Yin posited that since these theoretical propositions created the literature review and research questions, they need to be the relevant analytic strategy. The theoretical propositions aid in focusing attention on the relevant data and guide the case study analysis.

The second analytic strategy proposed by Yin (2004) involved reflection on rival explanations. Rival explanations may originate from the original theoretical propositions. Yin asserted that the search for rival explanations is relevant analysis strategies in the event that no theoretical propositions have been proposed.

Yin provided numerous examples of rival explanations. He categorized the types as either craft rivals or real-life explanations. Craft rivals include the null hypotheses, threats to validity and investigator bias. Real-life rivals include the direct rival, co-mingled rival, implementation rival, rival theory, super rival or societal rival.
The third analytic strategy as described by Yin is to develop a case description. This strategy involved the development of a descriptive framework for organizing the case study. The descriptive approach facilitates the identification of causal links to be analyzed.

Triangulation involves the use of multiple data sources in order to establish greater credibility of research findings. The aim of triangulation is to obtain re-occurring results from different sources. Credibility of data is enhanced when similar results are obtained across different methods.

The four major types of triangulation methods serving to validate qualitative research include:

1. The comparison of multiple sources of data across participants, time and sites.
2. Comparing the results generated by multiple independent investigators.
3. Comparison of multiple methods of data analysis.

An additional form of triangulation involves the comparison between the participants’ verbal statements against their actual performance.

Each data source has its strengths and weaknesses. Patton (1990) explains that multiple sources of information should be sought and utilized because no single source of information can be trusted to provide a comprehensive evaluation. Studies that rely solely on one method can be vulnerable to errors that may be inherent within that method. By incorporating a combination of observations, interviews and document analysis the researcher is capable of cross-validating the findings. Whereas, multiple forms of
information taken together provide cross-data validity checks thereby insuring for consistency within findings.

Participants

The school selected for this study was an urban elementary school located in the southern section of Lafayette, Louisiana. The school was situated on approximately 6 acres of land donated by a local family. This school was built in 1959 to accommodate 450 students. Today, however, the campus housed 641 students in kindergarten through 5th grades. Of these students, 59.91% are from economically-deprived homes. 10% of these students are in special education classes and, of that population 37% of students are mainstreamed, 40% are self-contained and 23% are in pre-school. (A mainstreamed student is a disabled student who participates in the education process with age-appropriate, non-disabled peers for any portion of the school day). This school served students from a four-parish area; Lafayette, Vermilion, St. Martin and Acadia. The current ethnic composition is 54% White, 43% Black, 2% Hispanic and 1% other minorities.

This school was eligible for Title I funding. The goal of Title I of the Elementary and Secondary Education Act (ESEA) of 1965 is to “ensure that all children have a fair, equal and significant opportunity to obtain a high-quality education and reach at a minimum, proficiency on challenging state academic achievement standards and state academic assessments.” This financial assistance is provided to schools educating low-income students to close the achievement gaps between low and high achieving students. Title I is a component of ESEA (1965) and can be found in Public Law 107-110.
This school had chosen to utilize its Title I funding on School-wide programs rather than in Targeted Assistance Programs as provided in ESEA. School-wide programs provide remedial instruction to entire school populations while targeted assistance programs only remediate isolated school groups within the school. This meant that all students within this chosen school participated in the *Success For All (SFA)* reading program. As provided in SFA, Grades 1-5 received reading instruction for a 90 minute block every day, while kindergarten students participated in SFA activities throughout the entire day. SFA reading tutors provided one-to-one services to those students who were having difficulties in reading. Each tutoring session met daily in 20-minute sessions. After-school tutoring is also offered to students in need of remedial assistance.

The targeted population for this study was kindergarten students. There were 7 kindergarten classes with a total population of 106 students. Six classes were regular education and one was a French Immersion class. Since the French Immersion class had an alternative curricular format, all students are immersed in French Instruction without benefit of translation, this group was excluded from the selection process. Additionally, two other factors precluded this group from participation. The French Immersion class had 22 students while other kindergarten classes in this school contained 15 or 16 students. Finally, the English component of instruction was only for a 90-minute block.

In academic settings, random selection of students to research groups is not often feasible. In most cases intact, pre-formed nonrandom groups of students are the norm. Samples for this study will be selected on the basis of purposive sampling. Purposive sampling often referred to as judgment sampling involves the selection of a sample that is
considered to be representative of a given population. In purposive sampling the investigator selects a sample based on his knowledge and experience with the group. This study’s researcher has been teaching kindergarten at this particular school for the past 17 years. In this instance, the researcher’s experience in this setting provides ample justification for relying on the technique of purposive sampling.

The samples for this study were selected from the remaining six kindergarten classes. 2 closely-matched kindergarten classes were selected for inclusion in this study. Purposive sampling methods were utilized in selecting the two class samples. Characteristics shared by both groups included 1) same number of students, 2) same racial composition, 3) same number of hearing impaired students, and 4) similar educational background and level of experience of the two teachers. For the purposes of providing clarity in this study groups were referred to as Group A and Group B.

Group A had a total of 14 students, 10 boys and 4 girls. 10 of these students were Black while 4 were White. Group A contained one hearing impaired student. The teacher of Group A had a B.S. in Education and has been teaching for 5 years.

Group B also contained a total of 14 students. The class was composed of 8 girls and 6 boys. There was also one hearing impaired student in this class. There were 7 Black students, 6 White students and one Hispanic student. The teacher in Group B had a B.A. degree and has been teaching for 9 years.

**Instruments**

The DIBELS (Dynamic Indicators of Basic Early Literacy Skills) (Good, Gruba & Kaminski 2002) was selected for use in this study due to its in-depth focus on several measures of phonemic awareness. DIBELS is a prevention-oriented, school-based
assessment and intervention program. DIBELS was developed to identify students in need of intervention and to regularly monitor the development of their reading skills.

DIBELS is a standardized, timed and individually administered test. The instrument contains three separate and diverse assessments to be administered at three different times during the school term. The first benchmark is to be administered in the fall; the second is scheduled for mid-year. The final benchmark is administered in the End/Spring.

The DIBELS test assesses phonological awareness, alphabetic principal and fluency with connected text. The phonological awareness component assesses initial sounds fluency and phonemic segmentation fluency. Initial sounds fluency consists of the ability to identify and produce the initial sounds of words. Phoneme segmentation fluency refers to the ability to produce the beginning sounds in orally pronounced words.

The alphabetic principal component of DIBELS assesses the students’ knowledge of the letter sound correspondences. In addition, this portion of the test measures the students’ ability to blend phonemes together to create nonsense words. The final measure of the DIBELS test is the measure of fluency with connected text. This test measures the students’ ability to fluently read connected text in grade level materials.

With respect to reliability, the Onset Recognition Fluency (OnRF) reliability coefficients are low at .65. Experts in testing and measurement agree that tests need to demonstrate coefficients of .85. The assessments can be repeated on multiple days utilizing alternative forms. Making repeated assessments on different days increases the reliability coefficients. The average of multiple assessment ranges from .90 to .98 for the repeated assessments.
Criterion-related validity was investigated in eight separate studies during the 1980’s revealing coefficients ranging from .52-.91. Test-retest reliabilities of different reading passages ranged from .89 to .94.

Predictive validity correlations on DIBELS Phoneme Segmentation Fluency with outcomes 1 year later range from .36 to .82. The concurrent criterion-related validity of DIBELS measures with other standardized tests of early literacy skills such as the Metropolitan Readiness Test, Stanford Diagnostic Reading test and the Woodcock-Johnson Psycho-Educational battery. Concurrent criterion-related validity ranges from .36 for Onset Recognition Fluency (OnRF) to .81 for Letter Naming Fluency (LNF).

Materials

Two copies of the text, Phonemic Awareness in Young Children (Adams, M.J.; Foorman, B.R.; Lundberg, I and Beeler, T. (1998) were required for this investigation. Both instructors for the groups A & B were provided the text by the Lafayette Parish School system. Activities in the text were explicit and follow a suggested activity sequence. Activities are paced and sequenced according to complexity.

In addition to the phonemic awareness text, the instructors exposed their students to phonemic awareness activites in a multitude of formats. Book/CD sets, big books, songs, rhymes and poetry were provided. These additional materials emphasized the skills of rhyming and alliteration as well as other melodic opportunities for students to “play with sound”. A list of the materials that were utilized in this study can be found in Appendix I.
Procedure

This study was conducted over a 6-week time frame. It commenced the first week of February 2005 and culminated mid-March 2005. Purposive sampling methods were utilized to reveal two closely matched kindergarten classes. Selection criteria for the samples included class size, gender ratios, ethnic composition, quantity of mainstreamed special education students and similar educational background and level of experience of the two teachers.

During the first week of February 2005 the researcher trained instructors A and B. Both instructors were provided release time from their respective classrooms in order to observe and participate in phonemic awareness training. Training occurred in 5 successive days of 15 to 20 minute lessons. The researcher demonstrated implicit and explicit methods of phonemic awareness instruction. Opportunities for instructor participation enabled them the opportunity to demonstrate their comprehension of the specific methods of instruction.

Instructors for groups A and B taught phonemic awareness as specified in the Adams (1998) Phonemic awareness in Young Children text. Lessons were conducted for 15 to 20 minutes per day during the 6-week study. The text provided a suggested sequence for progressing through the activities. All activities are paced and sequenced according to complexity.

Many of the activities in the text only required 7-10 minutes. For the additional minutes, supplemental activities such as literature selections, book/CD sets, poems and rhymes were utilized to extend the phonemic awareness instruction. A list of the materials used in this study can be located in Appendix I. The supplemental materials
were obtained from the school media center as well as the researcher’s personal collection.

The instructors for Groups A and B began daily phonemic awareness instruction. Group A received an explicit phonemic awareness instructional model, while Group B received an implicit phonemic awareness model. Both groups were taught phonemic awareness strategies from the Phonemic Awareness for Young Children text, (Adams, etal. 1998). Both groups received instruction in a whole class setting. Implicit phonemic awareness instruction is implied but not directly stated. Explicit instruction is teacher-directed and clearly stated.

The characteristic distinguishing implicit from explicit phonemic awareness instruction lies in the direct link to letter/sound connections made by the teacher during instruction. Teachers who instruct phonemic awareness implicitly do not draw the associations between letter (grapheme) and sound (phoneme). Once students are exposed to the phonemic awareness activity no further connections to the reading act are made. Thus, the phonemic awareness is presented in a decontextualized manner.

On the other hand, in explicit phonemic awareness instruction teachers encourage their students to concentrate on the sounds found within words. Explicit phonemic awareness instruction entails the teacher engaging her students in sound manipulations. Students are encouraged to reflect upon and expand the phonemic awareness skills presented in the lesson.

The rationale in utilizing the terms explicit and implicit phonemic awareness instruction is based on Cunningham’s 1990 experiment. Cunningham’s experiment compared Kindergarten and First grade phonemic awareness instruction to determine
whether the mode of instruction would have a more significant impact over one or the other group.

This investigation explored phonemic awareness instruction delivered via an implicit or explicit method of instruction. The two salient questions surrounding this exploration include:

1. What is the impact of phonemic awareness instruction on reading achievement for kindergarten students?

2. How does phonemic awareness instruction delivered via an implicit instructional method differ from an explicit, direct method of instruction in their respective impact on reading achievement?

Data required to answer these questions can best be acquired through qualitative research methodologies. Qualitative designs tend to be focused on the participant’s perspective, are descriptive, provide in-depth investigations and occur in their natural settings. This exploration included the qualitative techniques of participant observations, document analysis and interviews. These methods have the potential for providing answers to the questions posed by this study.

Qualitative designs tend to be focused on the participant’s perspective. Qualitative designs are descriptive and provide in-depth investigations on a phenomenon. Qualitative processes are inductive in that specific observations yield broad generalizations. The methods commonly found in qualitative designs include interviews, observations and case studies.

Interviews of the two participating instructors were conducted prior to their beginning phonemic awareness instruction. An exit interview was also conducted with
both instructors. These instructors were the primary informants and provided first-hand knowledge of their students, the classroom environment and the overall culture of this investigation. An interview guide is provided in Appendix D. The interviews were semi-structured and occurred when the instructors’ schedule permits.

In addition, interviews were conducted with the school’s administrators. For the purpose of this study, interviews were semi-structured and occurred as the instructors’ and administrators’ schedules permitted. Taken together, the instructor and administrator interviews provided cultural insights into the patterns of meaning that arose.

Documentary records on each student in both groups were reviewed. The cumulative record was created in kindergarten by the classroom teacher. This record followed the student through each year of his academic career. These records were personal and confidential.

The cumulative record contained a copy of the students’ birth certificate, social security card, proof of residency and health record of immunizations. Copies of legal custody papers were also kept within the cumulative record file. A Student Registration report completed by the parent is the final document kept in the cumulative record.

One of the items in this cumulative record is a Student Registration report. This report is one of the many forms parents are required to complete when registering their child for Kindergarten. Details requested on this form include the student name, address, date of birth, home phone number and social security number. Additionally, the student registration report requested parents to provide the parents’ own date and place of birth, level of education, and current occupation. This form requested the parents to provide the names and phone numbers of three people to be listed as emergency contact. Any schools
the student had previously attended as well as any medical restrictions were also to be entered on this form. While all parents were requested to complete the Student Registration form in its entirety many neglected or omitted some information. A copy of the Student Registration form is included in Appendix J.

Ethnographic observation is a qualitative method of research involving the collection of data over an extended time period in a naturalistic setting. Naturalistic setting refers to the topic being studied in their own naturally occurring setting rather than in a research-controlled environment. The rationale underlying ethnography is the belief that behavior is influenced by the environment in which it occurs. Since schools influence the behaviors of the students within them, understanding the behavior requires the cognition of the context in which the behavior occurs.

Observational research was conducted during the 6-week time frame. The researcher devoted a total of 90 minutes per week in observing in each groups’ class. Observations were conducted for 90 minutes in Group A and 90 minutes in Group B’s classrooms each week. A total of 180 minutes per week were dedicated to the observations in the two rooms.

A case study analysis of the two instructors and groups was undertaken. Student registration documents, interview and observation data were analyzed in an effort to discover instructional and academic trends. Case study data were collected throughout the 6-week instructional cycle. (The two cases are discussed in Chapter 4).

Letters requesting permission were sent to the Superintendent of the Lafayette Parish School System (Appendix A), the school principal, (Appendix B), and the two
participating teachers (Appendix C). The LSU application for IRB exemption was submitted for approval (Appendix E).

In the initial phase of this investigation, groups A and B were administered the DIBELS (Dynamic Indicators of Basic Early Literacy Skills) as a pre-test during the Spring of 2005. The researcher administered the test individually to all student participants. In order to provide an optimal assessment environment, students were tested in a room adjacent to their regular classroom. The DIBELS Kindergarten Benchmark is provided in Appendix K.

While the design focus for this study was qualitative, quantitative data were also collected and analyzed. Quantitative research relied on the collection and analysis of numerical data to predict or explain phenomena. Quantitative research centered on a view of the world as a stable, uniform place that can be measured, generalized and understood. Beliefs underlying the quantitative method suggested that everything in life can be quantified. This view of the world is often referred to as the positivist perspective of research. The positivist paradigm searches for explanations that are capable of being generalized to other people and places. Positivists primarily use quantitative methods of analysis.

The goal of quantitative research is to establish whether the hypothetical generalizations of the theory hold true. The major strengths of quantitative research are the close attention to numerical data and its ability to test the relationships between variables with much greater precision than in qualitative research methods.

The triangulation of qualitative and quantitative data within the same study provided greater credibility for the findings. The DIBELS test was administered to the
two groups of students as a pre/post test instrument. (The DIBELS assessment tool contains multiple versions for each of the tests in order to minimize treatment effects). The DIBELS pre and post-test scores were analyzed.

**Data Analysis**

The qualitative observational data were scrutinized in an effort to discover themes emerging during the phonemic awareness intervention. Analysis of the ethnographic observations, interviews and document analysis were synthesized into a case study analysis of Groups A and B. An effort was attempted to discover whether the qualitative data confirmed, denied or expanded the quantitative data.

Descriptive statistics were collected from the DIBELS pre and post test scores. Measures of central tendency reveal the center of a distribution. The three most frequently utilized measures of central tendency include the mean, median and mode. These three measures describe the center of the distribution. The mean is often referred to as the arithmetic average. The mean is calculated by taking the sum of all of the values and dividing by the total number. The median is the score in the middle of the distribution. 50% of the scores lie above the median and 50% are below the median. The mode represents the score that occurs most frequently in the distribution. The most frequently utilized measure of the central tendency is the mean.

Measures of variability define the amount of spread among the scores in the distribution. The purpose is to discover the variability of the scores. If the scores are close together then the variance is small. If the scores are more spread out in the distribution then the variance is high. The most frequently occurring measures of variability include the range and the standard deviation.
To compute the range the scores are first arranged in numerical order. The range is the difference between the highest and lowest scores. If the range is small the scores are close together. If the range is large then the scores are spread out. Range is not a very stable measure and only indicates a vague estimate of variability.

The standard deviation provides the most accurate measure of variability. Standard deviation represents how much the scores vary from the mean score. To determine the variance the difference between each score and the mean is squared and added together. This sum is divided by the number of scores minus 1. The standard deviation is the square root of the variance.

At the culmination of the 6-week phonemic awareness intervention, the DIBELS was re-administered by the researcher as a post-test instrument. The DIBELS pre and posttest scores for groups A & B were analyzed.
Chapter 4

Results

Introduction

The targeted population for this study was kindergarten students in an urban elementary school in Lafayette, LA. There were 7 sections of kindergarten classes in this school. Purposive sampling methods were utilized in selecting the two class samples. Characteristics shared by both groups needed to consist of the following criteria:

1. Same number of students in both classes.
2. Identical gender ratios.
3. Matching racial compositions.
4. Similar number of hearing impaired students.
5. Similar levels of education and experience for the participating instructors.

One of those classes consisted of a French Immersion class. The French Immersion class was excluded from inclusion in the study according to the following three criteria:

1. This Immersion class followed an alternative curricular format. All students were immersed and instructed in the French language without benefit of translation in all curricular areas except Language Arts.
2. The language arts instructional period was only 90 minutes per day. (The regular education SFA classes are instructed in Language Arts throughout the entire day).
3. Finally, this class contained 22 students rather than the lower parish-wide class sizes of 14.
One section of Kindergarten was closed in October 2004 by the school administration when that teacher resigned from the school system. The researcher’s class was automatically eliminated to avoid contamination from researcher bias. The samples for this study were then selected from the remaining 4 Kindergarten classes.

Of the remaining 4 sections of Kindergarten classes’ one instructor has taught for 30 years and another has been teaching for 20 years. These two were dismissed based on their dissimilar years of experience. The final two sections were selected for inclusion based on the previously mentioned criteria.

During the 2004-2005 school term the Lafayette Parish School System had initiated small teacher/pupil ratios in an effort to increase academic performance. System-wide Kindergarten class sizes ranged during this school term from a low of 11 students to a high of 17 Kindergarten students. Class sizes within this school ranged from 12 to 17 students.

In academic settings, random selection of students to research groups is not often feasible. In most cases intact, pre-formed non-random groups of students are the norm. The school administrators non-randomly selected the two selected samples. The two administrators said that the criteria they used for establishing classes included racial, gender and parental request. In addition, both administrators said that students repeating Kindergarten were evenly distributed among all but the French Immersion.

The researcher was the only investigator. She utilized outside assistance in locating individuals to sit in the researcher’s classroom during the observation periods. College students, parents of the researcher’s students and friends replaced the researcher in her absence.
The DIBELS (Dynamic Indicators of Basic Early Literacy Skills) was selected as the method of assessment. This test was selected as the assessment device because it provides greater depth, range and quality of information than other phonemic awareness tests. DIBELS provided an in-depth concentration on several measures of phonemic awareness. DIBELS was developed to identify students in need of intervention and to regularly monitor the development of their reading skills.

DIBELS was a standardized, timed and individually administered test. The test assessed the phonological awareness components of initial sounds fluency and phonemic segmentation fluency. Initial sounds fluency consisted of the student’s ability to identify and produce the individual sounds in words. Phoneme segmentation fluency referred to the student’s ability to produce the beginning sounds in orally pronounced words. Nonsense word fluency indicated the ability to blend phonemes together to create nonsense words.

Test administration was standardized in DIBELS. Detailed instructions were provided for test administration, timing techniques and for assessing each specific skill. A trained DIBELS instructor mentored the researcher in test administration. Researcher was required to administer the test on three separate occasions in the presence of the trained individual before being allowed to administer the test independently.

Analysis of the DIBELS pre and posttest scores was performed. The DIBELS Benchmark 2, Middle/Winter was administered during the first week of February 2005 as a pre-test measure. The two instructors taught phonemic awareness in an explicit and implicit method of instruction for six weeks. At the culmination of the six-week study the DIBELS Benchmark 3, End/Spring was re-administered as the post-test measurement.
Triangulation of qualitative and quantitative data was undertaken to establish greater credibility in research findings. The multiple forms of qualitative observations, interviews and document analyses combined with the quantitative pre and post-test DIBELS scores provided cross-validity checks. One additional form of triangulation involved the comparison between the two instructor’s verbal interview statements and their actual classroom performance was also undertaken.

This study was conducted over a six-week time frame. It commenced during the first week of February 2005. During the week of January 31 through February 4, 2005 instructor training was conducted by the researcher. In addition, the two instructors were interviewed. Classroom instruction in the implicit and explicit models began February 10, 2005. Pre and post study interviews were conducted with the two participating instructors. In addition, the researcher conducted interviews with the school’s principal and assistant principal. The interview guide is located in Appendix D. Classroom observations and DIBELS pre-test administration also occurred during this same time frame. The observations culminated during the last week of March 2005. Student post-testing occurred April 4-8, 2005. Following the post-tests the study was terminated.

Data derived from the classroom observations and interviews were collected. Themes emerging from the observations and interviews were then compiled into case studies on Groups A and B. Patton (1990) asserted that the case study method in qualitative analysis provides a method for the collection, organization and analysis of data.

As stated in Chapter 1 the purpose of this investigation was to explore two differing methods of phonemic awareness instruction. Group A received an explicit model of
phonemic awareness instruction while Group B received an implicit model of phonemic awareness instruction. The case studies on Groups A & B are organized and analyzed in a descriptive format according to Yin’s (2004) principles.

Qualitative Data

Introduction to Cases

Two instructors were involved in the phonemic awareness instruction. The instructor for Group A taught phonemic awareness using an explicit instructional model, while the instructor in Group B utilized an implicit method. For the purpose of this investigation, implicit instruction is understood but not directly stated. Instructors who teach phonemic awareness implicitly do not draw the connections between the letter (grapheme) and the sound (phoneme). Explicit phonemic awareness instruction is teacher-directed and clearly stated. In explicit instruction students are encouraged to concentrate on the sounds found within words. Students in explicitly taught phonemic awareness classrooms are encouraged to manipulate the sounds occurring within words.

Each case is organized and discussed within the following framework:

1. Background of instructor
2. Classroom environment
3. Phonemic awareness instruction

The background discussion provided an explanation of the two instructors who were participating in this study. The background information on the two instructors was obtained from the interviews and classroom observations. In addition, information was also obtained during daily interactions between the researcher and instructors.

The classroom environment included an overview of the two instructors’
classrooms. It involved details such as furniture placement and materials of instruction posted on the walls of the two classrooms. Teacher and student management styles are also included in this section.

Also discussed in the classroom environment section are the number and types of learning centers in each classroom. Learning centers were different areas in the classroom where students were allowed to participate in student-initiated learning opportunities. Centers provided developmentally appropriate experiences where students can learn through exploration. These centers provided a variety of active and quiet activities. Examples of the types of centers found in most kindergarten classrooms may include housekeeping/dramatic play, library/reading, math, art, writing, blocks and science centers.

The researchers’ role during the observation phase was discussed. The study was designed for the researcher to participate solely as an observer. The discussion included a focus on the researchers’ role as a participant and non-participant observer.

The discussion of phonemic awareness instruction encompassed the models employed by the instructors of Groups A and B. The instructor of Group A utilized an explicit phonemic awareness instructional model. The explicit phonemic awareness model of instruction is clearly stated and teacher-directed. The connections between the sound (phonemes) and the letter (graphemes) are clearly stated. Students were encouraged to experiment and explore phonemes daily during the course of this investigation.

The instructor for group B employed an implicit model of phonemic awareness instruction. The implicit model involved the instructor teaching phonemic awareness
without providing the connections between the sound (phoneme) and its corresponding letter (grapheme).

Group A

Background of Instructor

The instructor for Group A is a Caucasian female in her mid-twenties. Prior to marrying and moving to Lafayette, she lived and taught Kindergarten in Baton Rouge, LA. Instructor A graduated with a B.A. from LSU in Baton Rouge. She is certified to teach pre-Kindergarten and Kindergarten. Two years ago, she was married and consequently moved to the Lafayette area where she began teaching at this school. She became pregnant in the fall of 2004 and has just recently had her baby. The instructor for Group A has 5 years teaching experience.

In the initial interview when asked to explain her philosophy of teaching reading Group A’s instructor replied, “I believe that students have different learning styles and should be exposed to different types of reading instruction.” When encouraged to explain “different types of reading instruction”, she continued, “phonemic awareness, small group reading, read aloud, teacher modeling and sight vocabulary”. A follow-up question asked the instructor to explain how she merged her philosophy of teaching reading with the current reading program. Instructor A replied, “The reading program includes many of these skills in Shared Book, Kinder Roots, Fast Track Phonics, STAR and rhyme time”.
Classroom Environment

In Group A the rectangular tables were arranged vertically across the length of the room. The low tables were only three feet tall to accommodate the young students’ diminutive stature. Students were seated at the tables facing one another.

During group time, students sat in two straight rows on the floor facing the teacher. Within the rows each student had an assigned spot. A blue tape bearing the student’s name designated the assigned spot.

The instructor in Group A was seated in the front and center of the room facing the students. All of the instructors’ manuals and other teaching supplies were placed in rolling bins on either side of the instructor’s chair. Every item the instructor needed for instruction was easily accessible. Once the instructor sat down and instruction began she rarely moved from her seated position.

Materials of instruction such as alphabet charts, daily calendars, thematic visuals and word walls encircled the walls of the classroom. This instructor had chosen a frog-centered theme for the classroom decor. There were comical frogs decorating the curtains, the calendar icons were frog shaped and there were numerous frog objects personalized with the teachers name scattered around the room.

Upon entering Group A’s classroom the housekeeping/dramatic play center was located in the left corner of the room. A child-sized wooden stove, refrigerator and sink were placed in this center. There was also a miniature wooden storage cabinet and food preparation center. Plastic eating utensils, pots and pans and dolls were also in this center. Since this classroom had been newly created all of the housekeeping furniture
possessed a white laminate finish with red trim. The block center was placed in plastic storage crates beside the housekeeping center.

Writing center materials were located on top of a low bookshelf in back of the room. This center was located immediately behind the student’s tables. Markers, pencils, erasers and assorted sized paper were in the writing center. There were also assorted sized crayons in the center.

Adjacent to the writing center was the math center. This area consisted of 5 boxes of manipulatives stacked on a low table. One box held tangram pieces and mats; another had various colored linking clips. There were lacing shapes with the accompanying cards. Assorted sized teddy bear counters with the pattern mats filled another box. Last on the table were a few wooden puzzles.

The library center was placed near the only window in the room. There was a low student-height bookshelf and a few cushions on the floor in the center. There were only a few books in this center.

The word wall was displayed on the cabinets that were hung in the rear of the room. Alphabet cards from A-Z were hung from the cabinet doors. The words were listed alphabetically under the corresponding letter. Most of the words were drawn from the reading vocabulary list. Some vocabulary words were those terms easily recognized by emerging readers. Labels such as “wall, door, window, and table” were also listed on the word wall. Under each letter of the alphabet were words beginning with that particular sound.

In Group A there was consistently minimal student talk. During the course of the observations, students were always quiet, never speaking and rarely moving. The
classroom climate was closely monitored and highly teacher directed. Students were required to raise their hand and wait to be called upon before speaking. Occasionally when students were working at their tables the instructor stated, “You may talk quietly at your tables”. In one instance, while students were working on a worksheet at their tables’ one student quietly asked another a question about the worksheet. The student haltingly replied while furtively sneaking a glance to see if the teacher had heard.

During the observation period in classroom A the researcher’s role was strictly that of a non-participant observer. The participants were aware of the researcher’s presence. No attempt was made by the participants in group A to involve the researcher in the classroom activities or discussions.

**Phonemic Awareness Instruction**

In the implicit phonemic awareness instructional model received by Group A both the instructor and students sang the song for the days of the week. The lyrics were engaging and fun yet both the instructor and the students sang in a routine or memorized fashion. The instructor presented a flat, blank facial expression as the song was sung. Likewise, the students’ facial expressions were also routine and emotionless.

The “good morning to you” song is also a rhyming and repetitive song that was sung daily. The instructor sang the song in a rote and memorized manner. The students also sang this song with little expression.

The phonemic awareness activities were presented in a fluid and fast-paced method. The instructor first introduced then modeled each activity before the students were directed to practice the skill. If a student began to get excited about the days’ activity, a stern look from the instructor terminated the student’s exuberance.
One activity was focused on the student’s manipulation of the ending sounds in words. The instructor modeled a few words and directed the students to listen for the ending sounds. Next, the students were requested to answer. A few students attempted the task and were unsuccessful. This proceeded for a time until the instructor asserted, “You are not doing well with this activity”. Instructor A then stopped the phonemic awareness instruction and began another subject area.

Several days later, the instructional focus was again placed on manipulation of ending sounds. This day’s focus was on ending sounds found in firefighter-themed vocabulary words. The instructor asked her students to listen to the sounds at the end of the words, “face, mistake, fire, cookout and shame”. After two students answered correctly, a succession of other students responded with incorrect answers. The instructor said, “Oooh! We need to practice with that”.

Immediately following the ending sound activity the instructor introduced a firefighter song to the students. The song was on tape so she played the song once. She announced, “First we will listen then we will sing”. The song had a catchy and fun melody. The students listened intently as the song was played. They eagerly attempted to sing the song. It was repeated two more times. Her students became progressively better at singing the song after every repetition.

During the week of Valentine’s Day, the instructor read a rhyming book on this holiday. As she read she called attention to the rhyming words on each page. By the end of the book all of the students were correctly responding to the rhyming valentine words. On the second day when the story was repeated, the instructor stopped reading every time
she encountered the rhyming phrase. She paused for the students to supply the missing word or phrase. The students successfully performed this activity.

When the students were writing in their journals some students were overheard quietly stretching the sounds for the words they were writing. In these instances the instructor ignored their quiet voices. A student stretched the phonemes in the word, c-a-t and c-a-r. Later she orally read her journal entry to her teacher, “I want a cat. I can take care of it”.

In all of the observations the instructor for Group A rarely smiled. Her facial expression was constantly frozen and devoid of any expression. Additionally, her rigid stance was demonstrated throughout the entire school day. For instance, as her students walked in line or sat at the lunch table the instructor remained unyielding and unsmiling.

An interview was conducted with the schools’ two administrators. They were asked to characterize the teaching style of Instructor A. The assistant principal replied, “Her management style is very cut and dry. Her teaching style is more geared to an older age group. She might be better suited to teach a first or second grade class. Her students do not get freedom of expression. She’s like a drill sergeant. She fits the mold of a first grade teacher”.

The school principal said that instructor A is “a lot more structured than instructor B”. When asked for additional details the principal reiterated, “She’s very structured”. The principal was largely uncommunicative when describing each of the instructors.

Instructor A was interviewed twice, once prior to beginning phonemic awareness instruction and again as an exit strategy. During the first interview, instructor A was asked which teaching style she feels most closely aligned with, traditional or
constructivist. She replied “constructivist. It’s how I was taught in elementary school and in college”.

Instructor A was asked how her students had performed utilizing this method of phonemic awareness instruction. She replied, “I don’t see any change in their writing or their recognition of sounds. I would say that there is no great or significant improvement. But I feel that this class is writing better than last years’ class”. She was then asked what factor produced the improvement in writing between the two classes. Instructor A replied “This class is older and more mature than last years’ class. I have several repeaters and 2 of my students are from Nigeria. They were six when they began Kindergarten”.

Group B

Background of Instructor

The instructor for Group B is a Caucasian female in her early forties. She is married to a high school coach. This instructor has 5 children ranging in age from 2 years to 15 years old. Instructor B has taught Kindergarten in Wisconsin, Texas and Louisiana for a total of 9 years.

Instructor B stated that her philosophy of teaching reading “is to immerse students in a literacy rich environment”. This instructor stated that she merged her philosophy with the current reading program “through shared books, shared writings, read aloud, Fast Track Phonics, guided reading groups, phonemic activities, writing activities, a writing center and a classroom library. In the classroom library I have books, magazines and a quiet reading area”.
Classroom Environment

In Group B the rectangular tables were arranged in an L-type layout. As evidenced in Group A, the tables were low and only stood three feet tall. Students were seated at the tables facing and across from one another.

During group time students left their tables and congregated in a semi-circle on the floor facing the teacher. Most of the students sat randomly within the semi-circle. A few of the more active students were assigned positions in close proximity to the instructor. The helper for the day was seated directly beside the teacher.

Group B’s instructor was also seated. Her chair was situated in the front, left corner of the classroom. Her chair was personalized with her name. Some of the instructor’s manuals and teaching supplies were placed on the big book display stand which was located beside her chair. There were many instances when instructor A was forced to leave the instructional area to retrieve teaching supplies located in other areas in the room.

As found in Group A’s classroom, alphabet charts, daily calendar, thematic materials and word walls surrounded the room. A few Care Bears images were visible but no apparent theme was in evidence for this classroom. Most of the items decorating the walls were generic and commercially produced.

Shelves and furnishings in Group B’s classroom were wooden. This room had been established 30 years ago so the furniture appeared older and more worn than the furniture found in Group A. Many of the shelves had casters on the bottom to allow for ease in moving.
When entering classroom B on the immediate left was a mail center. This shelf contained small cubbyholes where students could place notes to their classmates. Each cubby was labeled with a student’s name. This center served as the writing and message center. Writing materials and paper were placed in a basket in one of the cubbyholes.

On the right of the classroom door directly across from the writing center was the block center. Large wooden building blocks filled the three shelves. The blocks were heavy and well worn.

Immediately behind the block center was the manipulative center. This center had puzzles, lacing cards, play-doh and two etch-a-sketches. All materials were again organized on an old wooden bookshelf. In addition, some magnifying glasses and materials to investigate created a miniature science area in the manipulative area. Students could examine feathers, rocks, sponges and other assorted items.

The library center was located directly behind the manipulative area. Books, magazines and nonfiction pieces of literature were organized on a small table. There were two student chairs at the table. This center was in the front right corner of the room.

On the opposite side of the classroom were the other centers. The technology center included the two computers. Two students were allowed to work on the computers during center time.

The dramatic play/housekeeping center was situated beside the computers. There was a student-sized refrigerator, stove and sink. All the furniture appeared old and worn.
There was a wooden doll bed, wooden ironing board and wooden iron. A wooden, plastic floor mirror was also in the dramatic center. A few dolls and some small doll clothes had been placed in the doll bed. There was also a box of clothes for students to pretend.

The word wall was again located on the cabinet doors lining one of the sidewalls of the room. As in Group A, alphabet cards from A-Z were posted and words beginning with the corresponding letter were listed. The word wall in this room had so many words listed that some were now trailing on the floor.

In Group B there were constant student-teacher interactions. The climate in classroom B was more relaxed and students were allowed to talk at their tables, in small groups and as they moved around the room. The sound level while not loud was constant. During a writing assignment at their tables one student looked over at another’s writing and told him “to put a period”. After he wrote the period the first student complimented him by replying “Very good!”

Instructor B smiled frequently and often laughed out loud at amusing sections in the literature. During group time she often communicated her thoughts to her students as in the book, Bringing the Rain to Kapiti Plain she said, “isn’t that funny? Can an arrow really fly up to the clouds?”

When the instructor noticed her students attention wavering she would announce “It’s time for a stretch break”. The participants stopped what they were doing, stood and stretched for about two minutes. After this pause, the instructor directed students to the next activity.

The researcher’s role in classroom B alternated between non-participant and participant-observer. Early during the observation period instructor B invited the
Phonemic Awareness Instruction

During daily phonemic awareness instruction Instructor B led her students in singing a rhyming months of the year song, a vowel song and days of the week song. Students enthusiastically sang on occasion becoming somewhat rambunctious. On such occasions, Instructor B warned, “Do you need to leave the meeting area?”

Instructor B introduced the bunny hop game. In this activity a prop bag containing pretend food was used. After the student pulled an object from the bag, he was required to state the beginning sound of his selected food. If the class decided that the food is one that a bunny would eat, then the food was placed in the bunny basket. Before it was dropped into the bunny basket the class counted the syllables within the word and all students bunny hopped that number of times. For example, a block of pretend cheese was pulled. The student said that “ch” was the beginning sound. The class then clap-counted the one syllable in the word cheese and hopped once. The second food drawn was a banana. The student pronounced “b” as its beginning sound, the class clap-counted 3 for the number of syllables in the word. Finally, the class bunny hopped three times for the 3 syllables in the word.
While the bunny hop game was being played students got progressively louder as they clapped and hopped the syllables. Students were very excited about the activity and eagerly anticipated their turn to answer. The hearing impaired students laughed out loud and smiled throughout the game.

During another observation period, as the researcher entered the room students were occupied in completion of a writing assignment. While Instructor B finished reading their journals those who had finished writing returned their journals to the proper place. The instructor directed the students to the reading area for singing time. One student exclaimed, “Oh boy, it’s time for tooty-ta”.

The hearing impaired student’s interpreter moved into the reading corner with the students who had completed their writing. While waiting for the instructor she reviewed some sign language signals with the class. She asked the students to demonstrate the sign language terms to invite a hearing impaired student to play either in centers or outside. Together they reviewed the signs for the words “Will you play with me? Thank you, yes and no”.

Instructor B inserted the Jean Feldman CD into the player. The teacher directed her students to listen to this song. “This is the first time you hear this. It’s a repeating song. Let’s listen, then we’ll sing”. Students and the instructor enthusiastically listened to the song titled Monkeys and the Alligator. The instructor reminded the students to listen closely to the rhyming phrases in the song. After listening to the song students sang the song with minimal input from the instructor.

After the alligator song, Group B’s instructor played another song from the same Feldman CD. Again the instructor called their attention to the use of rhyme in this song.
Then both the students and the instructor repeated the rhyming lyrics. After the song the instructor told the students to stand and stretch.

During the following day’s phonemic awareness instruction period the instructor directed students’ attention to the same Jean Feldman CD. The monkey and alligator song was sung. Then everyone sang the Mother Gooney Bird song. Students knew this song well and eagerly participated.

The text Bringing the rain to Kapiti Plain (Aardema, 1981) was introduced. The story is a cumulative, rhyming African folktale. Instructor B read the text in a sing-song rhythmic tone. After the reading and a brief story discussion, students were directed to write about the folktale. Students returned to their tables and were quietly talking among themselves. Two boys were gesturing to one another how they would shoot an arrow up to the clouds. Another student told the researcher, “Look, Ms. Abshire how I made my cloud”. A different student remarked aloud, “I’m making a cloud”.

Once everyone had written something about the story they returned to the meeting area with their writing samples. Instructor B joined the students while remarking, “I’m so excited, and I can’t wait to see your writing!” Students took their turn sitting in the “special chair” to read their writing aloud. Students eagerly clapped and smiled as each student read their journals.

The school principal and assistant principal were interviewed. They were both asked to characterize the teaching style of Instructor B. The assistant principal replied, “She’s more child-centered, something like a mother hen. She’s more tolerant of certain behaviors. She ignored more behaviors than Instructor A”.

71
The school principal characterized Instructor B as “Nurturing. There’s never a change in her demeanor with her students. She’s very positive. Even when she’s correcting someone she’s very positive. If things are not working she’s flexible”.

Instructor B was interviewed prior to beginning phonemic awareness instruction and again as an exit strategy. In the initial interview she was asked to characterize her own teaching style. She replied, “I was trained in a pure constructivist approach. But with constructivist teaching, discipline is not concentrated on and I can’t deal that way. I need discipline. I guess I am a combination of both schemes. I think it is impossible to be a strict constructivist teacher in Kindergarten”.

Instructor B was asked to detail her students’ progress after being exposed to this method of phonemic awareness instruction. “I believe this class’ writing has benefited from this method of phonemic awareness instruction. I also feel they have a greater appreciation and looked forward to it. They have more excitement and enthusiasm for music now. They became more involved and participated more than other classes. I think it’s cute to see the change in the student’s attitude, they always wanted to sing.”

She continued, “One of the things that impressed me by this method of instruction is that I value music more. I look to incorporate more music into my teaching in the future. I found that my students never got tired of the songs and music and they have a greater feeling of success”.

Document Analysis

A review of the cumulative records on the students in Groups A and B was
conducted. The Student Registration report on each of the students in Group A and Group B was analyzed. Both groups contained a total of 14 students each. An analysis of the student’s chronological age at the time of the phonemic awareness intervention was undertaken. Chronological age is reported in terms of the year and month. The ranges in chronological age for the 28 students are provided.

In Group A, six students were aged 5.4-5.7, three were 5.8-6.0 and three were 6.4. Two were repeating Kindergarten and were therefore older than their classmates. The repeater was 7.1 years. One student was from Nigeria and had begun school at 6 years of age. At the time of the intervention the Nigerian was 7.7 in chronological age.

In Group B, seven students were aged 5.4-5.7, three were 5.8-6.0 and two were 6.4 in chronological age. Two students were repeating kindergarten in this class. Their chronological ages were 6.2 and 6.7.

The Student Registration report also revealed that in Group A seven of the parents were married and seven were single parents. In this group, nine parents possessed college degrees and four had high school degrees. Four parents had not completed high school. Parental occupations included two who were self-employed, one was a cook, one desk clerk, two were military, three were homemakers, one was a pharmacist, web editor, college soccer coach and one teacher.

In Group B, nine parents were married and six were single parents. Six parents had college degrees and six had a 12th grade education. Parental occupations included two homemakers, one truck driver, carpenter, day care worker, painter, one restaurant manager. Eight parents had not listed any occupation on the form.
Quantitative Data

Although the focus of this study utilized a qualitative methodology, a brief quantitative analysis is provided for the reader. Descriptive statistics such as the mean and the standard deviation were calculated for the students in Group A and Group B. Descriptive statistics employ a numerical format to summarize large quantities of data. Principal measures of these statistics include measures of central tendency (mean, median, mode) and variability (range, standard deviation).

DIBELS pre-test and post-test scores were analyzed for each group. These scores were analyzed to determine the impact of the phonemic awareness training. The two groups involved in this study contained a total of 14 students in each group. A total of 28 students participated in this study. The raw data set is in Appendix L. Three major findings arose from this analysis. Table 2 summarizes the data in Appendix L.

Table 2
Descriptive statistics based on the raw data in Appendix L.

<table>
<thead>
<tr>
<th>Group A</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td></td>
<td>N    Mean</td>
<td>Standard</td>
</tr>
<tr>
<td></td>
<td>Deviation</td>
<td>Deviation</td>
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<td>PSF</td>
<td>14   35.79</td>
<td>13.86</td>
</tr>
<tr>
<td>NWF</td>
<td>14   30.86</td>
<td>19.74</td>
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</table>

(Table cont’d)
Finding - 1

Group A (explicit) indicates gains compared to group B (implicit) in all three DIBELS components, LNF, PSF and NWF. These gains were measured by computing the difference between post-test - pre test data. (Gain score = post – test score minus the pre-test score). See Table 3.

On the LNF component Group A achieved a mean gain score of 13.29 as opposed to Group B’s mean gain score of 5.36. See Table 4 for details. The PSF gain score of Group A was 15.00 while Group B exhibited a 9.57 mean gain score. On the NWF Group A’s mean gain score =14.57 while Group B achieved a gain score of 1.14.

Finding – 2

One interesting finding is that among the subjects in Group A the gains in the three components appear to be unrelated. The same finding also holds true for the subjects in Group B. Data indicated that gain in one component may not imply the gains in the other two. No relationship is apparent between the three skills. Each mean gain
appeared to occur independently of the other two. This pattern appears to be replicated in Group B. See Table 3 above and Appendix L.

Table 3

Raw data for test gain for both groups

<table>
<thead>
<tr>
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<th></th>
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<tr>
<td></td>
<td>LNF gain</td>
<td>PSF gain</td>
<td>NWF gain</td>
<td></td>
<td>LNF gain</td>
<td>PSF gain</td>
<td>NWF gain</td>
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Finding – 3

Within each group gains were observed for each component. This indicated that post-test scores on LNF, PSF and NWF tended to be considerably higher than that of pre-test scores.

Within Group A
(i) Gain in LNF was compelling.
(ii) Gain in PSF was compelling.
(iii) Gain in NWF was compelling.

Within Group B

(i) Gain in LNF has been marginal.
(ii) Gain in PSF was compelling.
(iii) Gain in NWF was minimal.

Details are given in Table 4.

Table 4

Summary of test score gains for both the groups [Gain = Post test score – Pre test score]

<table>
<thead>
<tr>
<th>Group A</th>
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</tr>
<tr>
<td>PSF</td>
<td>14</td>
</tr>
<tr>
<td>NWF</td>
<td>14</td>
</tr>
</tbody>
</table>
Chapter 5

Conclusions

The intent of this study was to explore whether there were differences between two methods of phonemic awareness instruction. Two groups of kindergarten students were selected. Group A received an explicit method of phonemic awareness instruction while Group B received an implicit method of instruction.

For the purpose of this study implicit phonemic awareness instruction is implied but not directly stated. Instructors who teach phonemic awareness implicitly do not draw the connections between the letter (grapheme) and the sound (phoneme). Explicit phonemic awareness instruction is clearly stated and teacher-directed. In explicit instruction students are encouraged to concentrate on the sounds found within words. Students in explicitly taught phonemic awareness classrooms are encouraged to manipulate the sounds in words and phrases.

Qualitative and quantitative data were analyzed to provide triangulation between the accumulated data. Observations, document analysis and interviews were compiled into case studies on the two groups of participants. Combined together the case studies and the quantitative findings lend credence to the findings. Caution is advised when generalizing across populations in the use of these findings since they represent results from two small sample sizes. The two groups involved in this study contained a total of 14 students in each group. A total of 28 students participated in this study.

By referring back to the original research questions a framework is provided for the summary of findings.
• Question 1: What is the impact of phonemic awareness instruction on reading achievement for Kindergarten students?

Group A, the explicit method consistently outperformed Group B across all DIBELS skill areas. In letter naming fluency (LNF), phoneme segmentation fluency (PSF) and nonsense word fluency (NWF) Group A exhibited compelling gains. The instruction in Group A was delivered in a direct, explicit manner. In this group, the instructional environment was highly teacher-directed. Routines were well structured and rigidly adhered to. Teacher dialogue dominated in all areas. Based on the findings from this exploration, the explicit method appears to be the superior method of phonemic awareness instruction.

Group B achieved fewer gains across all DIBELS skill areas. This implicit phonemic awareness group exhibited marginal gains on their LNF post-test scores. Their performance on the PSF was compelling, while their gains on the NWF were minimal. In this group, the instructional environment was student centered. The evidence of large gains on only one measure of the DIBELS assessment could indicate that the implicit method of phonemic awareness instruction is less effective than the explicit method.

One of the particularly intriguing findings to emerge from this exploration is that the post-test gains across all three DIBELS components appear to be unrelated for both groups. No relationship is apparent between the LNF, PSF and NWF scores for both groups. If a student could recognize the letters of the alphabet in LNF, that did not automatically transfer to his knowledge of phonemes. Likewise, achievement in phoneme segmentation fluency did not indicate there would be achievement in nonsense word
fluency. The gains in one component did not transfer and provide for gains in the other two. These unrelated findings were replicated in both Group A and Group B.

Stanovich (1986) postulated that the individual differences exhibited in early reading development may be “developmentally limited” (p. 362). He explained that these early differences in development may be altered during subsequent levels of reading achievement. It is conceivable that the unrelated post-test gains across DIBELS components in the two groups may be developmentally and individually limited.

An uncontrollable potentially influential variable in this study was the chronological age of the kindergarten students at the time of the intervention. The 28 students involved in this phonemic awareness intervention ranged in age from 5.5 (5 years and 5 months) to 6.4 (6 years and 4 months) in chronological age. According to Louisiana Law a student must achieve 5 years by September 30th in the year they enter kindergarten.

The unrelated observations that arose from this study could stem from the maturation differences among the students within the two groups. (A Maturation difference refers to the expected normal growth of a student’s physical, intellectual and emotional changes that occur over an extended time). Many of the students in Group A were older than those in Group B.

Additionally, Group A contained several students from Nigeria who were older. They began the school year at 6 years old. According to the instructor in Group A, the educational expectations of the Nigerian parents were readily apparent. These parents held their children to stricter standards than some of the other students. In addition, the students repeating Kindergarten were older than the other students in the group. Those
students who were 6 years and older were generally more mature than their 5.5 year old counterparts. Future research should be sensitive to the potential confounds of chronological age and even social maturity.

Vygotsky (1999) asserted that learning occurs in “fits and starts”. The unrelated observations arising as a result of this study may also be as a result of this cycle. Results from the pre and posttests demonstrate that some students who scored high initially did The great range in the student’s individual ages and experiences may account for some of the irregular achievement patterns by the students in this study. This irregular achievement pattern may be attributed to maturation differences.

One of the other factors that may have affected the variation between pre-test and post-test scores involved the DIBELS test administration. In the DIBELS pre-test situation all students were escorted to a vacant classroom for the test. This classroom was quiet since just the researcher and three students were the only occupants in the room.

In this setting students were tested individually by the researcher. Students who were waiting to be tested were seated in the far corner of the room. While waiting their turn they were given the option of coloring in a coloring book or reading some predictable literature. Distractions were kept to a minimum in this setting. Both groups of students were pre-tested in this manner.

The post-test DIBELS setting was markedly different from the pre-test. During the pre-test there were two vacant classrooms in the school. However, during the post-test both previously vacant rooms were occupied. Therefore, the only option available to the researcher was to administer the post-test in the researcher’s classroom.
In order to minimize the distractions during the post-test setting the researcher obtained a parent volunteer to teach the researcher’s students. The researcher and the student being tested were seated behind a wooden partition in the corner of the researcher’s classroom. With the researcher’s students present during the post-test setting the noise level during the test was slightly greater than in the original pre-test administration.

- Question 2: How does phonemic awareness delivered via an implicit instructional method differ from an explicit, method in their respective impact on reading achievement?

An unanticipated finding emerged during the course of the observations. Although both instructors teach in a school utilizing the Success For All school-wide model for reading instruction that required that all teachers employ a scripted, teacher-directed approach to teaching reading. Both instructors have received extensive training in teaching this school-wide model. Observations revealed the extreme variation in teaching styles between the two instructors.

In interviews both instructors professed a constructivist philosophy for teaching. Constructivist educators such as Dewey, Piaget and Vygotsky supported a student-centered environment where learning was constructed by the students. In actual practice, however, these two instructors employed strikingly dissimilar styles of instruction.

The instructor of Group B employed constructivist methods while the instructor of Group A utilized a highly traditional style of teaching. Students in this group sat quietly at all times and only spoke after being called upon. The amount of teacher dialogue in this classroom far exceeded the amount of student-generated dialogue. In
large group situations students sat on assigned spots on the carpet. When walking in a line on campus students walked quietly with their right index finger covering their mouth. As indicated by the assistant principal the instructor for Group A employed a “drill-sergeant” type of teaching style.

Despite her interview comments indicating her self perception as a constructivist type of teacher, instructor A was in actual fact a traditional teacher. Instructor A’s observed teaching style contradicts her stated philosophy of teaching. This apparent inconsistency between instructor A’s observed teaching style and her interview statements leads to an intriguing conjecture. Perhaps she teaches the way she has been taught throughout her educational experience. Maybe the “all eyes facing forward”, all desks in a straight line, teacher standing front and center of the classroom is the only way she knows how to teach. Or it may be that the teacher-directed, traditional style better reflects her individual personality. Instructor A appeared to be perfectly suited to an explicit, direct instructional model. She did not demonstrate the behaviors commonly attributed to the Constructivist methodology. The comparison between Instructor A’s verbal statements and her actual teaching performance serve as a further triangulation method.

Limitations

The small class size was a limiting factor. During the 2004-2005 school term the Lafayette Parish School System had implemented small teacher/pupil ratios in an effort to increase academic achievement. System-wide Kindergarten class sizes ranged during this school term from a low of 11 students to a high of 17 Kindergarten students. Class sizes
within this school ranged from 12 to 17 students in all classrooms. In this study, there were 14 students in both Groups A and B.

All of the students in Groups A and B were exposed to a phonics-based reading program during the Fall 2004 school term. All of the English-language consonants and a few consonant diagraphs were introduced. According to the Success For All program the goal of this phonics program was aimed at exposure, not mastery of the skills presented. Therefore, the students’ scores may be impacted by prior exposure to similar instruction. However, since both groups received the same instruction the findings are considered valid.

The length of time for the study was an additional limiting factor. While 6 weeks is an adequate time frame, a study commencing in the Fall with the DIBELS pre-test, a mid-year assessment and culminating with a post-test could provide more findings.

Recommendations for further research:

Expand the study to include additional groups of kindergarten students in other public school settings. This study was limited in the number of groups that could be observed by one researcher. Therefore, if there were more groups the resulting findings could be enhanced.

Conclusions

Taken together the triangulation between the qualitative observations and interviews coupled with the pre and post-test quantitative data supports the finding that phonemic awareness instruction delivered via an explicit, direct instruction method appears to provide greater academic achievement over an implicit method. Based on this study, the explicit method appears to be the superior method of phonemic awareness
instruction. This finding replicates the findings from Bradley and Bryant, 1983; Lundberg, Frost and Peterson, 1988; Cunningham, 1990; O’Connor, Jenkins, Leicester & Slocum, 1993; National Reading Panel, 2000.

Findings from the Cunningham (1990) experiment indicated that the method of phonemic awareness instruction does affect future reading ability. Both the Kindergarten and First grade students who were exposed to the explicit emphasis on segmenting and blending achieved significantly higher than the skill and drill method. Cunningham maintained that direct instruction yield greater academic gains over the implicit method.

Based on these findings several assertions may be offered. The principal finding is that the explicit method of phonemic awareness instruction appears to be superior over an implicit method. Furthermore, the traditional, scripted, direct instruction model of instruction appears to facilitate explicit phonemic awareness instruction. Finally, the older chronological age of students in Group A appears to provide greater academic achievement than younger chronological age students in Group B.

Future research should be directed investigating the “developmental limitations” proposed by Stanovich (1986). Specific attention should be given investigating the chronological age of students at Kindergarten entry. Perhaps the individual differences in chronological age affect academic achievement. Investigations should explore whether older chronological aged Kindergarten students perform academically superior to younger aged Kindergarten students.
References


U. S. Department of Health and Human Services, National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel: Teaching Children to Read.* (NIL Publication No. 00-4754). Rockville, MD


Appendix A

Letter to Superintendent

Sue A. Abshire
600 Foreman Drive
Lafayette, LA 70506

November 9, 2004

Dear Superintendent,

I am a full-time Ph.D. candidate in the Department of Curriculum and Instruction at Louisiana State University. I have completed my coursework and am continuing my dissertation research for a doctorate in reading. My major field of study is in working with students who are learning to read.

I am requesting permission to conduct research for my study. This investigation will commence in the Spring 2005 school semester at an elementary school in Lafayette Parish. This study will run for 6 weeks and will involve two intact kindergarten classes. I have already received approval from the school principal and the two participating teachers.

I welcome the opportunity to discuss my research with you and answer any questions that you may have.

Respectfully yours,

Sue A. Abshire
Appendix B

Letter to Principal

Sue A. Abshire
600 Foreman Drive
Lafayette, LA 70506

November 9, 2004

Dear Principal,

I am a full-time Ph.D. candidate in the Department of Curriculum and Instruction at Louisiana State University. I have completed my coursework and am continuing my dissertation research for a doctorate in reading. My major field of study is in working with students who are learning to read.

I am requesting permission to conduct research for my study. This investigation will commence in the Spring 2005 school semester at your school. The study will run for 6 weeks and will involve two intact kindergarten classes. I have already received approval from the two participating teachers.

I welcome the opportunity to discuss my research with you and answer any questions that you may have.

Respectfully yours,

Sue A. Abshire
Appendix C

Letter to Teachers

Sue A. Abshire  
600 Foreman Drive  
Lafayette, LA 70506

November 9, 2004

Dear Teacher,

I am a full-time Ph.D. candidate in the Department of Curriculum and Instruction at Louisiana State University. I have completed my coursework and am continuing my dissertation research for a doctorate in reading. My major field of study is in working with students who are learning to read.

I am requesting permission to conduct research for my study. This investigation will commence in the Spring 2005 school semester at your school. The study will run for 6 weeks and will involve your kindergarten class. I have already received approval from Superintendent Easton and your principal.

I welcome the opportunity to discuss my research with you and answer any questions that you may have.

Respectfully yours,

Sue A. Abshire
Appendix D

Interview Questions

1. What is your philosophy of teaching kindergarten students to read?

2. How do you fit your philosophy into the overall scheme of your current SFA reading program?

3. In your opinion, what are the most critical skills in teaching reading?

4. How would you define the term phonemic awareness?

5. What impact do you feel that phonemic awareness plays in learning to read?

6. How do you currently teach phonemic awareness?

7. In the past, have your students views of themselves as readers been altered after being exposed to phonemic awareness instruction?

8. While phonemic awareness has been shown to be critical for the at-risk student, has it been beneficial to the average and above average student?

9. Have students who have recently transferred into your class profited from phonemic awareness instruction?

10. Is there anything further that you would like to add?
Appendix E

IRB Application

LSU INSTITUTIONAL REVIEW BOARD (IRB) for
578-6692; FAX 6722
HUMAN RESEARCH SUBJECT PROTECTION OFFICE: 303 B1 David Boyd Hall

APPLICATION FOR EXEMPTION FROM INSTITUTIONAL OVERSIGHT

Unless they are qualified as meeting the specific criteria for exemption from institutional review board (IRB) oversight, all LSU researchers/projects using human subjects must be reviewed by the LSU IRB. This form helps the IRB determine if a project may be exempted, and is used to request an exemption.

Instructions: Complete this form. If exemption seems likely, submit it. If not, submit regular IRB application. Help is available from Dr. Mathews, 578-6692, irb@lsu.edu or any screening committee member.

Principal Investigator: Sue A. Higbee

IF Student, name supervising professor here: Dr. Clark

Ph: 578-6057

Mailing Address: 303 B1 David Boyd Hall

Fax: 578-6057

Project Title: (An Ethnographic Study of Hispanic American Pre-K Children)

Agency expected to fund project: N/A

Subject pool: (e.g., Psychology Students)

Circle any “vulnerable populations” to be used: children, elderly, prisoners, persons with incarcerated persons cannot be exempted.

I certify my responses are accurate and complete. If the project scope or design is later changed I will resubmit for review. I will obtain written consent from Authorized Representative of non-LSU institutions in which the study is conducted.

PI Signature: Sue A. Higbee Date: 6/16/99 (no per signatures)

Screening Committee Action: Exempted Not Exempted

Reviewer: Signature Date

Part A: DETERMINATION OF “RESEARCH” AND POTENTIAL FOR RISK

This section determines whether the project meets the Department of Health and Human Services definition of “research” and if not.
Appendix F

Consent Form

Sue A. Abshire
600 Foreman Drive
Lafayette, LA 70506

February 3, 2005

Dear Parents,

I am a full-time PhD candidate in the Department of Curriculum and Instruction at Louisiana State University. I have completed my coursework and am continuing my dissertation research for a doctorate in reading. My major field of study is in working with students who are learning to read.

I am requesting your permission to conduct research for my study. This investigation will commence in the Spring 2005 school semester at your child’s school. This study will run for 6 weeks and will involve your child’s kindergarten class. I have already received approval from your Superintendent, Principal and Teacher.

I will be observing your child’s class over a six-week period. During this time, two reading assessments will be administered. In an effort to protect your child’s confidentiality and anonymity, groups will be identified as either Group A or Group B.

I welcome the opportunity to discuss my research with you and answer any questions that you may have.

Respectfully yours,

Sue A. Abshire
Appendix G

Letter of Assent

Group# ______   Date ___________

I ________________ agree to participate in this dissertation project.

____________________________________
Student Name
Appendix H

Research Terms

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Appendix I

Materials List

Book/CD sets


Marzollo, J. Ten cats have hats. Orlando: Harcourt.


Literature selections


Musical selections


Teacher Materials

Appendix J

Student Registration Form
Dynamic Indicators of Basic Early Literacy Skills™ 6th Edition

DIBELS

Kindergarten Scoring Booklet DIBELS™ Benchmark Assessment

Edited By:
Roland H. Good III
Ruth A. Kaminski
University of Oregon

Available:
http://dibels.uoregon.edu/

Instructions:
This packet includes 2 parts: the student response form and student stimulus materials. The student response forms are photocopied back to back and saddle stapled. The same form is used by each student for each benchmark assessment throughout the year. The second part is the reusable student stimulus materials. Make one copy for each person who is doing the benchmark testing. They can be laminated and comb bound for reuse.

## Appendix L

**Raw data [See Notations Below]**

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**Notations:**
- \( X^1 = \text{LNF} \)\(^{\text{pre = pre-test LNF}} \)
- \( X^2 = \text{PSF} \)\(^{\text{pre = pre-test PSF}} \)
- \( X^3 = \text{NWF} \)\(^{\text{pre = pre-test NWF}} \)
- \( X^1 = \text{LNF} \)\(^{\text{post = post-test LNF}} \)
- \( X^2 = \text{PSF} \)\(^{\text{post = post-test PSF}} \)
- \( X^3 = \text{NWF} \)\(^{\text{post = post-test NWF}} \)
Vita

Sue Abshire has taught for 27 years in grades Kindergarten, First, Second and Fourth. She currently teaches Kindergarten at S. J. Montgomery Elementary in Lafayette, Louisiana. Sue has also taught reading at the University of Louisiana at Lafayette.

Sue received the Bachelor of Science in elementary education from Louisiana State University in 1978. In 1982 she received a master’s degree in educational administration from Louisiana State University. She attended Northwestern State University in Natchitoches, Louisiana and received her Educational Specialist degree in 1994. Her major subject was elementary education and reading was her minor area. Her thesis at Northwestern was titled An Investigation of Kindergarten Students’ Attitudes toward Reading and Writing.

Sue Abshire currently resides in Broussard, Louisiana with her attack dog, (a Yorkie) named Killer.