Supporting Economically-Disadvantaged Emergent Readers with Repeated Readings While Listening

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Abstract

Supporting Economically Disadvantaged Emergent Readers with Repeated Reading while Listening

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May 2016

The number of children being raised in poverty in America is increasing. This situation creates a challenge for the American education system. The home language environment of economically-disadvantaged children negatively impacts language acquisition. Classroom teachers are being asked to raise the standards in their primary classrooms at the same time that they are receiving students who are unprepared for academic success. This academic pressure creates tension for educators who cannot impede the progress of the class, as a whole, to work with those who are struggling to learn to read. This study introduced an intervention that utilized recorded stories to improve three areas of reading achievement: words per minute read correctly, comprehension, and prosody. Gains were noted in all groups; however, the participants had significantly higher growth scores than the control group. The recommendation is to utilize repeated reading with listening to improve reading achievement of non-analytic learners.
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Dedication

I have always considered my daughter, Natalie, to be my greatest earthly accomplishment. There is nothing I long for that could top the experience of being a mother and I have nothing better to contribute to the world. As I have watched you grow and develop into the young lady that you are and consider the woman you will become, I am filled with a sense of pride and achievement unmatched by any other experience in my life. So this is dedicated to you. I look forward to seeing what you will accomplish in the future and watching you chase after and fulfill your own dreams. The bar is set…
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CHAPTER 1

Introduction

Poverty is a growing challenge facing America’s schools, and being raised in poverty alters the way the brain functions. Creating an environment of high expectations is essential to the success of any school and especially to those schools serving a high-risk population. When we respond to the individual differences among students by lowering our expectations and providing inferior educational opportunities, we underestimate the capacity for all of our children to grow intellectually, and we fail to provide adequate tools for learning. In these ways, we confirm our own predictions. To prevent such educational tragedies, a particularly urgent goal given the growing diversity of our children attending our schools, we need to both embrace and support pedagogically a vision of possibility regarding the educational achievement of all our children (Weinstein, 2002).

Statement of the Problem

Students being raised in poverty enter school with language deficits which negatively impact their reading achievement. One cause of these language deficits is the lack of oral language in the home environment due to increased use of electronics, parental depression, and parental absenteeism. The purpose of this study is to determine if auditory reinforcement during repeated readings, which does not require additional personnel or individual attention by the teacher, can increase reading performance.
Significance of the Study

The results of this study will provide guidance for kindergarten teachers as they support the development of reading skills in economically disadvantaged emergent readers. As a former kindergarten teacher, the author is aware of the intense constraints on the amount of time one person can spend supporting the needs of approximately 20 students. If the use of recorded books, which do not require any additional personnel or individual attention from the teacher, can support emergent readers, then this support would be accessible to all students without concern of a financial constraint.

Theoretical Framework

According to McLeod (2009), Jean Piaget (1896-1980) is regarded among the most prominent 20th century scientists specializing in developmental psychology. The primary focus of his research was on the biological influences over how we come to know. When examining the behavior of humans compared to other animals, Piaget found the ability to utilize abstract symbolic reasoning as the primary difference. As a biologist, Piaget was concerned with the metaphysical changes a human makes based on the stimulus found in its environment, which he described as intelligence. Behavior, adaptation to the environment, is controlled through mental organizations called schemes that the individual uses to represent the world and designate action. This adaptation is driven by a biological drive to obtain balance between schemes and the environment (equilibration).

Piaget theorized that babies are born with schemes functioning at birth that he called reflexes. In other animals, these reflexes regulate conduct from birth until death. However, humans are unique in their ability to take in information from their surroundings, and use that
information to adapt to the environment; these reflexes are rapidly converted into constructed schemes. Piaget defined two methods used by the individual in its effort to adapt: assimilation and accommodation. Both of these methods are utilized during all life phases of life, and increase in complexity as new information is introduced. In order to make sense of a human’s surroundings, Piaget asserted that human brains have defined cognitive structures and use assimilation to adapt the surroundings so that they fit into one of these structures. However, humans also possess the ability to adapt the cognitive structures and leave the environment un-manipulated through a process called accommodation.

Stages of Cognitive Development. Piaget identified four stages in cognitive development:

1. Sensorimotor stage (Infancy). In this period, which has six stages, intelligence is demonstrated through motor activity without the use of symbols. The infant explores the world through direct sensory and motor contact. Object permanence and separation anxiety develop during this stage. Physical mobility allows the child to begin developing new intellectual abilities. Some symbolic (language) abilities are developed at the end of this stage.

2. Pre-operational stage (Toddler and Early Childhood). The child uses symbols (words and images) to represent objects but does not reason logically. The child also has the ability to pretend. During this stage, the child is egocentric. Memory and imagination are developed, but thinking is done in a non-logical, nonreversible manner.

3. Concrete operational stage (Elementary and early adolescence). In this stage (characterized by 7 types of conservation: number, length, liquid, mass, weight, area, volume), the child can think logically about concrete objects and can thus add and subtract. The child also understands conservation. Egocentric thought diminishes.
4. Formal operational stage (Adolescence and adulthood). The adolescent can reason abstractly and think in hypothetical terms. Early in the period there is a return to egocentric thought. Only 35% of high school graduates in industrialized countries obtain formal operations; many people do not think formally during adulthood (McLeod, 2009).

**Research Questions**

1. Does the use of auditory reinforcement during repeated readings improve the reading performance of economically-disadvantaged, emergent readers?

2. Does one area of reading achievement improve more than the others as a result of the treatment?

**Null Hypotheses**

Listening to recorded stories has no effect on reading achievement.

**Limitations and Delimitations**

Potential limitations in this experiment included student absences, motivation, interest in material, and the transient nature of this school’s population. The one-group, times-series design cannot determine if other variables such as participant’s age, maturation, parental education, parental involvement, social reinforcement, learning style, or test sensitivity contributed to the outcome.


**Definition of Terms**

*Poverty.* The state of one who lacks a normal or socially acceptable amount of money or material possessions (Merriam-Webster, 2012).

*Economically Disadvantaged.* To be economically disadvantaged is to be eligible to receive free or reduced-price meals under the National School Lunch Act. Children are eligible for free meals if their family income is at or below 130% of federal poverty guidelines and reduced-price meals if their family income is 131%-185% of federal poverty guidelines (National School Lunch Program, 2012).

*Emergent Reader.* Emergent readers are beginning to learn sound/symbol relationships--starting with consonants and short vowels--and are able to read CVC (consonant-vowel-consonant) words, as well as a number of high-frequency words (Thibault, 2003).

*Auditory Reinforcement.* An auditory reinforcement is a recording of the text of a book that a student listens to as they follow along visually with the text.

*Prosody.* Prosody is the rhythmic and intonational aspect of language (Rasinski, 2003).

*Repeated Reading.* Repeated reading is a strategic approach designed to increase reading fluency and comprehension. During repeated reading, students read and re-read a selected short passage until they reach a satisfactory level of fluency (Rasinski, 2003).

**Chapter Summary**

There are two interesting phenomenon happening in American society that both have significant impacts on the education system.
First, American society is becoming a nation of predominantly non-verbal communicators. People e-mail, text, message or tweet to share information but the amount of verbal language is decreasing. In this environment children do not even have the benefit of overhearing language. This impacts language acquisition negatively.

Secondly, American society is rapidly losing its middle class. Historically, the education system has been designed to cater to the middle class student. The American dream centered around being able to work your way up and education played an integral role in that movement.

Children being raised in poverty experience metaphysical changes in their brains, and the standard method of instruction sets them up to fail. However, because of the human brain’s unique capabilities to adapt and change, the obstacles facing a growing number of students can be overcome with proper teacher development and enhanced teaching strategies. One possible strategy that can be implemented with minimal time constraints for the classroom teacher is a technology-based system using recorded stories. The recorded stories utilize the auditory/global strengths of learners who are struggling because the analytic-based models, such as phonics, fail.
CHAPTER 2

Literature Review

Introduction

Economically-disadvantaged children have fewer pre-school experiences with complex, vocabulary-rich language environments. As a result, they begin school underprepared to perform well, especially with the new accelerated standards. Without a proper teacher understanding of the nature of poverty and the affects that being raised in poverty have on the brain, many struggling readers are not getting effective interventions to combat reading difficulties in the primary grades. Without these interventions, they are continuing to struggle as they move up through the grades and fall farther and farther behind. One of the greatest difficulties of any classroom teacher is the inability to devote the one-on-one attention that many struggling readers need to overcome their reading deficits. One proposed solution is the use of technology-based reading programs. These programs provide an individual experience varying from computer-based games to recorded books that model proper reading, allowing the struggling reader to use their auditory skills when analytic-based models are failing.

Changes in Social Environment

An examination of the social stratification of the last 50 years in the United States reveals several reasons for the growing income-based academic achievement gap.
First, income disparity has increased radically in the last three to four decades, making the income gap between middle/upper class families and families both poor and near poor much wider. Over the last 50 years, families in the top 10\textsuperscript{th} percentile with school-aged children have increased their earnings from five times that of the lowest 10\textsuperscript{th} percentile to 11 times that of the same group today. This rapid growth in the top 10\textsuperscript{th} percentile means that children from a middle/upper class household have available monetary resources that far exceed those of children in the bottom 10\textsuperscript{th} percentile families, in relation to spending on their social and academic development and preparation (Autor, Katz, & Kearney, 2008).

Additionally, the opportunity for children to obtain a higher level of social status than their parents has become less certain and far more difficult than it was fifty years ago, in part because of the increase in wage disparity and partially because of economic recession. In the 1950s and 1960s, the economy was growing rapidly, and the majority of America’s youth were raised in families that experienced more financial security than previous generations. However, starting forty years ago, the economy’s trajectory leveled significantly, and opportunities for social advancement saw a marked decline.

Third, the job sector is increasingly dissected into professionals, requiring high levels of education and skill, and hourly wage employees, who require little skill or education. Previous generations had the opportunity to work in manufacturing jobs; however, the majority of these jobs have been moved overseas taking with them the opportunity to work your way into the middle class without a college degree. Consequently, educational accomplishments have become progressively vital to economic achievement (Murnane, Willett, & Levy, 1995).
Another reason for the income-based achievement gap is there has been a shift in what constitutes educational success. Increasingly, successful test scores have become the focus of what schools are supposed to produce. For the last decade, test scores have dominated educational politics, and college admissions rely more heavily on them than in the past. A child’s entire school year is determined in the performance contained in one week of testing. Therefore, parents either view these scores as critical to the educational success of their children or dismiss them as invalid measures. Where education used to view growth as appropriate if one year of progress was seen over one school year, now all students are measured against a norm regardless of their individual progress (McLanahan, 2004).

Finally, families in America have also shifted in many significant ways in the last forty years. Children of professionals are typically raised by two parents, both of whom are college graduates; conversely, hourly worker’s children are increasingly raised in a home run by a single mother who obtained only a minimal level of education (Schwartz & Mare, 2005). Meaning that social status, which is important for children’s development, has become more closely correlated to other family characteristics and resources.

Children’s academic success is a result of the combination of these broad social trends. Uncertainty about the likelihood of a child’s opportunity to gain higher social status than their parents, along with greater emphasis on educational success for professional status, has agitated parent’s concern about their children's education. Consequently, many families now view education as a competition, which their child must win to secure future success.

An interesting phenomenon has occurred in American society in which parents in all social subgroups are focused on their children’s education while only the professional subgroup
has the economic resources to affect change. This difference has impacts on the social, emotional and educational growth of both subgroups of children. The professional group now spends 700 percent more on their children’s development than the hourly worker subgroup and nearly twice as much as the same group invested forty years ago. This difference in investment of resources that positively impact the academic development of children is evident in the performance of the children throughout age groups (Kornrich & Furstenberg, 2013).

**Reading Achievement**

Reading tends to be understood as the act of looking at a string of letters in a written text and translating or decoding these letters into sound. If a child can turn the letters c-a-t into cat, he or she knows how to read. This narrow view of reading misses the extent to which an individual’s ability to interact with the words on a page demands engagement with a text’s meaning as well as its individual words. However, reading includes not only decoding but also comprehending and thinking critically about text.

When examining the performance of economically-disadvantaged students and comparing that data to their non-economically disadvantaged peers. The economically-disadvantaged subgroup underperforms in all categories. Poor performance on standardized testing by economically-disadvantaged students has been linked to their economic status. According to 2009 data from the Census Bureau, of all children younger than 18 living in families, 15.5 million live in poverty, defined as a family of four with less than $21,947 per year. This includes 4.9 million, or about 10 percent, of non-Hispanic White children, and one in three Black and Hispanic children, at 4 million and 5.6 million, respectively (Annie E. Casey Foundation, 2011).
Research has attempted to determine the predictability of a student’s educational attainment based on their race and class. Several experts have concluded that gaps in achievement result from less obvious environmental factors which are created by exposure to opportunities provided by the resources available to wealthy children and unavailable to poor children. Children of hourly wage workers often do not have learning materials at home, and lack access to proper medical attention and nourishment. Studies have also found that when parents provide engaging learning environments in low-income families their children do not demonstrate learning deficits similar to those found in the general poverty population (Sparks, 2011, U.S. Department of Education, 2000; Viadero, 2000).

The average National Assessment of Educational Progress (NAEP) reading score at the fourth grade level in 2013 had increased by 5 points from the score in 1992 but remained stable from the average score in 2011. In 2013, students eligible for free/reduced-price school lunch, which is an indicator of low family income, scored an average of 32 points lower than students who were not classified as free-reduced lunch eligible. This performance gap, of 26 points, was not significantly different from the gap measurement in 1998 (U.S. Department of Education, 2014).

Poverty on the Rise

The economic situation in America and the rise in welfare recipients, along with the unemployment rate, means more children are being raised in low-income families in the United States. The proportion of Americans under the age of 18 in economically-disadvantaged household is on an upward trajectory, increasing from 40 percent in 2006 to 45 percent in 2011 (Addy, Engelhardt, & Skinner 2013). During this time period, the overall number of children of
all ages increased by less than one percent, while the numbers who were low-income and poor increased by 13 percent and 23 percent, respectively. According to the National Center for Children in Poverty (2015), children under 18 years represent 23 percent of the population, but they comprise 33 percent of all people in poverty. Among all children, 44 percent live in low-income families and approximately one in every five, 22 percent, live in poor families. Similarly, among children in middle childhood, age 6 through 11 years, 45 percent live in low-income families and 22 percent live in poor families. There are more than 24 million children in middle childhood, age 6 through 11 years, in the United States:

- 45 percent – 10.9 million – live in low-income families
- 22 percent – 5.4 million – live in poor families.

Many misconceptions exist concerning students being raised in poverty. A more thorough teacher understanding of the culture of poverty and the affects that poverty have on the brain is needed to support students struggling with language acquisition. One strategy that has been developed is a technology-based approach to modeling reading fluency and prosody.

**Poverty’s Effect on Cognitive Ability**

The processes used in cognitive thinking are highly complex. It is measured in numerous ways and the resulting performance changes based on many different inputs, including the significant influence of socioeconomic position. The social status of a child is closely connected with their performance on a number of measures of cognitive ability, including intelligence quotient (IQ), achievement tests, grade retention rates, and literacy (Baydar, Brooks-Gunn, & Furstenberg, 1993). There is a significant difference in the performance level of affluent and poor children on almost every cognitive development measurement tool from standardized
achievement tests all the way down to the Bayley Infant Behavior Scales. Correlations exist among socioeconomic position and factors of cognitive aptitude and significant variations in performance ability are evident regardless of the examinee’s developmental stage (Gottfried, Gottfried, Bathurst, Guerin, & Parramore, 2003). While IQ is used as a measure of cognitive ability, brain research has shown that IQ is fluid not fixed, and just because a student is born into poverty or begins school with language deficits, appropriate gains can be made to excel them to the level of their non-economically disadvantaged peers. However, the good news is data does not determine destiny and brains are designed to change (Jensen, 2009).

Recent research in developmental psychology and neuroscience suggests that poverty may be particularly harmful early in a child’s life. Young children experience astonishingly rapid development in their brains at a time when the majority of environmental stimulus comes from the family, as opposed to school or peers (Duncan, Magnuson, & Vortuba-Drzal, 2014).

In a study by Noble, McCandliss, & Farah (2007), 150 six to eight year-olds in good health and representative of multiple socioeconomic groups were asked to complete activities reliant on language skills, visual-spatial skills, memory, working memory, cognitive control, and reward processing. Socioeconomic status accounted for more than 30 percent of the variance in the left perisylvian language system and a smaller but significant portion of the variance in most other systems. This region undergoes a longer period of maturation after birth than other areas of the brain, opening it up to the influences of socioeconomic status and the home language environment (Sowell, 2003). It is conceivable that this region’s extended period of development allows environmental influences to either strengthen or impede development (Noble, Norman, & Farah, 2005). The quantity, quality, and context of speech present in the home matters a great deal (Hoff, 2003).
The daily lives of low-income families involve dealing with more stressors than professional families. All elements of the home environment impact a developing child, including the family tension created by poverty. Families living in poverty experience the financial pressure created by their need to purchase essential goods and services, and the struggle to balance needs with lack of resources. There are few or no resources available for entertainment or personal products creating feelings of deprivation. This financial pressure, in addition to other stressful events; for example, working odd hours, housing instability, single parenting, and job insecurity, create intense psychological distress in poor parents, including depression and feelings of hostility (McLeod, & Kessler, 1990). As a result of the depression and feelings of hostility, the brain experiences a level of toxicity that depletes cognitive functions (Spears, 2011).

Poverty and Language Acquisition

If the mother serves as the primary caregiver, then the child’s vocabulary is impacted by her social and economic status, individuality, spoken terminology, and familiarity with appropriate child development (Bornstein, Haynes, & Painter, 1998). The exposure to oral language experienced within the first five years is crucial to language acquisition, and ideally, a child should hear approximately 5 million words and should be able to verbalize about 13,000 of them. However, that is not often the reality in economically-disadvantaged homes (Jensen, 2009). Weizman and Snow (2001) found that low-income caregivers speak in short, grammatically simple sentences. The conversations in this environment involve few two way discussions, few inquiries into a child’s thinking are made, and few explanations containing appropriate and complete information are given. This limited language environment results in children who are not equipped with an appropriate range of language capabilities when starting
school and learning to read. When Hart and Risley (1995) followed a group of socioeconomically diverse children for six years, they determined that the language environment provided by the parents impacted the cognitive development of the children. Parents who attended college and subsequently entered a professional career provided a language-rich home environment. The children of professional parents doubled their vocabulary range when compared to children of the same age being raised by poor parents. The professionals talked to their children more frequently and with more purposeful attention to the words selected, questions asked, and responses given. The lag in vocabulary at age three correlated with a cognitive lag seen later in childhood. In fact, IQ tests performed later in childhood showed the low socioeconomic students’ scores trailing behind those of the more affluent children by up to 29 percent.

**Learning to Read with Limited Language Skills**

Language acquisition and reading are reciprocal relationships and top the list of significant influences affecting a developing brain (Jensen, 2009). The human brain is not designed with innate reading skills. The skills needed to achieve reading mastery are comprised of the following: phonological awareness, fluency, vocabulary, phonics, and comprehension, and must be explicitly taught. These skills should be introduced before children reach school age. When examining the growth patterns of the reading brain, there is evidence that suggests poverty creates adverse movement in the trajectory (Noble, Wolmetz, Ochs, Farah, & McCandliss, 2006).
Components of Reading Achievement

**Prosody.** Anyone around children for very long soon discovers that listening comprehension far exceeds reading comprehension for many reasons. The speaking voice brings to interpretation pitch, stress, pause, rhythm, and tone. These audible clues create meaning that students are unable to infer from print alone. Too often students are bogged down deciphering single words, and, when left on their own, they miss both the melodies and meaning of phrases, sentences, and paragraphs (Farrell, 1966). According to research, students who exhibit prosody when reading are more likely to achieve mastery in all areas of reading ability (Daane, National Assessment of Educational Progress, & National Center for Education Statistics, 2005). Daane et al. discovered a definite connection between prosodic reading and complete reading achievement. In an additional study, Miller and Schwanenflugel (2008) concluded that there is a correlation in the comprehension ability of third grade students and those who were prosodic readers in first and second grade. When students practice reading fluency their activities should include both components of automaticity, which frees up processing power for comprehension, and activities that encourage expression so that the students do not simply call words but also attach meaning to the words in a passage (Schrieber, 1991).

**Comprehension.** Research conducted over several decades has shown that repeated reading, or multiple readings of the same passage within a short time frame, improves reading comprehension (Faver, 2008). In general, when student reading reaches automaticity, reading comprehension improves (Daly, Andersen, Gortmaker, & Turner, 2006). However, this is not the case for many students. Teachers should monitor and evaluate reading comprehension, rather than simply assessing words read per minute and miscues. Reading comprehension is both explicit and implicit, and both can be assessed by asking text dependent questions after students
finish reading a passage (Alber, 2005). Many strategies can be utilized to assess reading comprehension including asking the child to restate (Hansen, 2004), summarize the story (Fisk & Hurst, 2003); or utilize a story map (Babyak, Koorland, & Mathes, 2000). A story map is a graphic organizer. Visual prompts are provided and the student uses these prompts to write in characters, setting, problem, and other elements from the passage. Reading comprehension should not be sacrificed for fluency. Teachers should regularly assess reading achievement based on all aspects of reading achievement. An increase in fluency cannot be considered if there is not also a corresponding increase in comprehension evidenced through prosody or correctly responding to text dependent questions. Teachers must properly monitor achievement simultaneously in all three areas.

**Fluency.** Reading fluency is typically defined as reading that mimics the spoken voice (Kuhn & Stahl, 2003). More precisely, fluent readers identify words mechanically, read at an acceptable speed, and with proper expression. Because the human brain only has a finite amount of processing capacity available at a given time, reading fluency, which frees up available processing power, serves as the crucial ability that enables reading comprehension, which is the goal of reading. Repeated readings are one method of dynamic student involvement proven to be effective for increasing reading fluency (Kuhn & Stahl, 2003; Therrion, 2004). When utilizing repeated readings, students are timed reading a text audibly numerous times. The objective, with each successive attempt, is an increased quantity of words read per minute (Mastropieri, Leinhart, & Scruggs, 1999; Therrion, 2004).
Parental Involvement

One myth associated with children being raised in poverty is that parents of students who live in poverty are uninvolved in the children’s education because they do not value it. “Rarely do low-income parents care little about education” (Parrett & Budge, 2013, pg. 48). Rather, it is more likely they do not know how to help, and the current system provides them with limited opportunities to be involved in ways that fit into the realities of their lives. Gorski (2008) asserted that people living in poverty have similar attitudes about the education of their children as do their more affluent counterparts. There are a number of factors that negatively impact their access to school involvement opportunities including: working multiple jobs, working evenings, not having paid leave, inability to afford childcare, or lack of transportation. The relevancy of education in the lives of the adults living in poverty causes them to appear not to value education. Beegle (2006) suggested that education lacked meaning for many of the people studied. They attended school for reasons such as, “it was the law”. For all of the participants, school was “a source of discomfort, unhappiness and stress”, and a place they felt they did not belong. There is a strong link between parental education level and parental expectations related to education. Parents who are hourly workers rather than professionals, single parents or work nonstandard or inflexible hours, usually don’t have as much time to read to, work on alphabetic awareness, or practice number sense with their children (Duncan, Magnuson, & Votruba-Drzal, 2014).

Some of the difficulties underprivileged children face in learning to read are in the early stages of associating what is heard with the printed symbols for these sounds. There is evidence of a high degree of correlation between hearing and reading. These children are unlikely to have had parents with time to read aloud to them in their early years (Smiley, 1965). If students come
from a background in which they never read books expressively, and in which even the conversation they hear is impoverished, consisting most often of commands and categorical statements lacking intellectual content, their reading readiness is further impaired (Farrell, 1966).

**A Different Approach to Reading Instruction for Children in Poverty**

Economically-disadvantaged children generally start school with academic gaps when compared to their affluent counterparts. The brain needs rich cognitive stimulation early in its development, making parental influence extremely importance. Unfortunately, poor parents often lack the social-emotional resources to properly engage their children (Jensen, 2009).

Furthermore, these deficits leave poor children not only underprepared to enter school but continue to negatively impact vocabulary development, IQ, and social skills (Bradley, Corwyn, Burchinal et al., 2001). Standardized intelligence tests show a correlation between poverty and lower cognitive achievement, and economically-disadvantaged children often earn below-average scores in reading, math, and science and demonstrate poor writing skills. Being born into a poor family does not automatically doom a child to academic failure; however, they need specialized attention to their deficits and an environment of high expectations to overcome the poverty cycle (Jensen, 2009). Below-basic academic achievement often leads to lower expectations both internally and from external influences, which permeates other aspects of childhood and undermines children’s general self-image.

Because every skill in reading must be taught and children being raised in poverty are not being taught at home, the primary years of reading instruction are critical to reading achievement. Most young children tend to be global, tactile/kinesthetic learners and struggle with emergent reading (Dunn, 1995). When working with these children, teachers should learn what
students are interested in and structure their reading materials to correlate. These children also need to be allowed to make their own choices within a structured environment. Global learners also benefit from a student-centered environment in which they participate in constructing knowledge through hands-on skill work and are not required to sit in a desk for long periods of time. Teachers of global learners, and all small children, must provide strong modeling of varied and complex texts. Global learners need to be captivated by the passages they are reading. An effective global learner’s reading program is focused on contextual word learning in addition to passages that would be too complex to master alone but can be successfully accessed by utilizing recordings. The students listen to the passages multiple times giving them the opportunity to follow along the first couple of times and then read the stories individually (Carbo, 2007). The following are three strategies suggested when working with impoverished students:

• Accommodate both global and analytic reading styles based on student’s learning preference. Most young students and struggling readers are not successful with phonics, an analytic model, because they are primarily global learners.

• Phonics requires students to be sufficiently auditory and should not be emphasized with strongly global students. When non-analytic students struggle with phonics do not continue causing frustration, adapt the instruction method.

• Provide sufficient modeling of stories. Beginning and struggling readers benefit from modeling, which is a strong global strategy for those students who need both visual and auditory reinforcement to connect to a reading passage (Carbo, 2013).

The previous strategies aid in developing a crucial element for successful reading, which is the desire to read for recreation or without prompting from an adult. “When students enjoy
reading and associate reading with fun, they're more likely to spend substantial time reading for pleasure” (Allington, 2001; Anderson, 1996). Pleasure reading is critical to the development of all areas of reading achievement: fluency, comprehension and vocabulary development. Reading, like most activities, requires time spent practicing. Like athletes who practice the fundamentals of their sport repetitiously in order to achieve muscle memory and automatic reactions, children who spend large amounts of time pleasure reading develop this same automaticity and skill development in reading.

**Global Learners**

One challenge in working with global learners is that, the bifurcated learning style segments of this model (sensing/intuitive, visual/verbal, inductive/deductive, active/reflective, and sequential/global) are not fixed, and rather than be exclusive of each other are interchangeable. A student's preference on a given scale (e.g. for inductive or deductive presentation) may be crucial, preferable, or insignificant, vary with age, and fluctuate based on content of study and learning environment.

Global learners have a tendency to make sudden, dramatic learning gains, grasping information unsystematically independent of recognizing relationships. Global learners might have the ability to answer multifaceted problems rapidly, or compose things in innovative ways once they have absorbed the big picture, but they may have trouble verbalizing how they did it. Global learners are either engrossed or disengaged from their work. They may give the impression of being slow and underperform on formative practice and summative assessments until they understand the complete concept, but once they have it they can often see connections to other subjects that elude sequential learners (Pask, 1988).
Many people identify with the experience of being completely confused by a concept only to suddenly experience clear understanding; however, this does not mean that the majority are global learners. When students are able to think sequentially, they have the ability to manipulate information throughout the stages of understanding. Because each stage builds on the next and sequential learners are able to make logical connections with the information presented, projects and even homework can be completed throughout the unit of study.

Strongly global learners lack good sequential thinking abilities, thereby creating an inability to proceed with utilizing information until the complete concept can be understood. This lag is sequential thinking skills, makes the demonstration of understanding on formative assessments unsuccessful. Even after global learners understand a unit of study, they may be unclear about the threads within the subject, while sequential learners may know a lot about detailed facets of a subject but may have trouble relating them to different parts of the same subject or to different subjects. It is essential for global learners to activate their schema and to then attach new learning to what they already understand; however, educators under current time constraints rarely expend instructional time on this important learning activity. Consequently, many global learners, who could potentially become outstanding creative thinkers, underachieve because their mental processes prevent them from keeping up with the sequential pace of their coursework (Felder, 1990).

**How can global learners help themselves?** According to Felder and Soloman, global learners need to grasp the full scope of a unit of study before they can break it down into smaller pieces of information. Although many educators avoid frontloading, in order to allow students to construct their own learning, global learners need to see the connections between new information and their schema. Global learners benefit from pre-reading a text deriving clues from
any graphics and looking for any unknown vocabulary words. Global learners should also immerse themselves in studying one subject at a time, perhaps choosing a different subject to study each night. Younger global learners can benefit from a thematic approach to instruction, in which all the subjects are interconnected. Relating the subject to things a global learner already knows, either by asking connecting questions, utilizing schema charts, or by consulting references, strengthens learning. When global learners persist, they will reach understanding of the new material, and then they can use their unique understanding of the connections to other topics and disciplines to enable them to apply knowledge in ways unavailable to most sequential thinkers.

**Phonics or Whole Language?**

There has been a long running debate between supporters of whole language and phonics. Educators either completely adopt one or the other or employ a combination of the two in favor of balanced literacy. What is the best approach? Educators who support one of the other are usually passionate in their belief that their particular approach is the crux to reading engagement.

Skills-based competencies include many of the competencies traditionally looked to for reading success: alphabet knowledge, fluency, and word reading. Knowledge-based competencies are about comprehension or making meaning. They focus on the ability to understand and express complex ideas through knowledge of concepts, vocabulary and reasoning (Connelly, Thompson, Fletcher-Flinn, & McKay, 2009). The key insight is that both skills and knowledge-based competencies are vitally important, and neither serves as the foundation for the other.
However, arguing about the best method will not help our children be successful readers. Our society is increasingly engaging in written communication, making reading capability increasingly crucial. In the current classroom environment, children are expected to construct much of their own knowledge and gain unknown content knowledge through reading. Those students who cannot successfully read are at risk of failing academically (Walton & Walton, 2002). The expectation for teachers and administrators to raise students' reading test performance continues to increase in a climate of changing expectations and increasingly differentiated student needs.

Recognizing the need for improved reading strategies and performance is far more straightforward than producing gains in student achievement in these areas. The best approach, phonics or whole language, remains unclear. Those who subscribe to the whole language approach assert reading should be taught by selecting high quality children's literature, incorporating writing, and incorporating communication activities that can be used across the curriculum to teach reading. The reciprocity of reading and writing enable teachers to use a mentor text to model a literary device, and then utilize a writing activity in which students are asked to synthesize the same literary technique. This level of higher-order thinking solidifies the concept and creates a deeper level of knowledge. On the other side of the language pendulum, those who subscribe to phonics instruction insist that students master reading through a direct, sequential mode of teaching in an organized way.

However, there is an increasingly widespread view that a more effective approach to reading instruction embraces each approach creating a complementary environment that utilizes the strengths of each. Like most things in life, the most effective approach seems to lie somewhere in the middle. Effective educators utilize quality mentor texts to teach the elements
of literature and nonfiction text features, and have students manipulate word patterns and phonological awareness of words within the text (Deavers, Solity, & Kerfoot, 2000).

There is data that specifies the technique used by an educator during reading instruction is taken in to the students’ receptive language center, and is then the same method used in their productive language center as they encounter new text (Johnston & Thompson, 1989). One study determined that when within an instructional approach the teacher instructs children with a focus on decomposing language into smaller units, called phonemes, the children tend to utilize the same approach when encountering new words in text (Comaskey, Savage, & Abrami, 2009); however, when utilizing an analysis strategy to identify unfamiliar text, students tend to use a rime-based analysis approach (Sowden & Stevenson, 1994). Likewise, Sowden and Stevenson (1994) determined that when children are only exposed to the strategies included in one method of reading instruction, they only have one set of strategies available for the production of language. Therefore, since the method of reading instruction becomes the method utilized by students to produce language, students should be taught all available techniques. These findings necessitate a balance between the instruction of skills-based strategies and knowledge-based strategies to create competent readers.

Evans and Carr (1985) determined that instruction that utilizes the analytic phonics model relies more deeply upon cognitive skills associated with reading, information processing, visual analysis, short-term memory, language and non-verbal reasoning, than language-orientated programs, where children learn to read at their own pace and style. This relationship was again examined by McGeown (2012) who found that the relationship between receptive and productive language in learning to read is directly correlated to the instructional approach. Students have either learned to decode and decompose words into phonemes through phonics, or have built a
sight word base and practiced reading those words through authentic exposure to children’s literature. Because the method of instruction activates different areas of the language center, those areas are strengthened and then relied on by the student as they attempt to produce language during reading. Students with deficits in certain language centers will not be able to access methods that rely heavily on that area, necessitating a blended and balanced approach to literacy.

**Phonics.** Approaches to implement during phonics instruction include the following (Carbo, 2013):

- Reading programs should incorporate both the study of literature and the enjoyment of books on topics of interest to the student. Children need the experience of hearing the rhythm and intonation of prosodic reading and should experience daily read aloud. Teachers can help students develop their own prosodic reading through choral reading, and develop their interest in reading by devoting time to individual pleasure reading and shared partner reading.
- Worksheets become monotonous and do not spark the imagination of children, so they should be limited to one per day. Additionally, phonics instruction should comprise only a brief amount of daily reading instruction.
- Students learn more when they are engaged in the environment where information is presented. Utilize word games whenever possible to involve all students in learning.
- Not all students are adept at analytics; therefore, phonics will be a struggle for these students. For these students utilize the auditory reinforcement of recorded books or other technology tools. Ensure that your classroom library appeals to various learners through diverse fiction
and nonfiction materials. Allow children to participate in choosing their own reading materials at some point during the school day.

Whole Language. Approaches to implement during whole language instruction include the following (Carbo, 2013).

• Literacy instruction utilizing mentor texts must incorporate both engaging literature based learning activities and structured skill work, especially for analytic learners.

• Don’t expect students to grasp a phonics concept based only on a mention during a literacy lesson. Students also need lessons in phonics, exposure to manipulatives and other various tools to practice decoding words. Recorded phonics lessons or online learning modules should be utilized for struggling students to obtain additional practice on deficit skills.

• Invented spelling should be limited with highly analytic learners or students who have memory problems.

Repeated Reading with Listening

Reading instruction that is driven by research includes the following: phonological awareness, decoding skills, vocabulary, fluency practice, and a variety of reading comprehension strategies (Armbruster, Lehr & Osborne, 2001; National Reading Panel (NRP), 2000), and a break down in student competency in any of these overextends cognitive processes. According to the 2011 National Assessment of Educational Progress (NAEP) reading scores, a significant percentage (68%) of fourth grade students are reading at the basic level or below-basic level indicative of only partial mastery of fundamental skills required for proficient work on grade level content, which generates a growing mandate for effective interventions with positive outcomes (Begney & Silber, 2006). Research shows that decoding and fluency are vital
foundational skills for vocabulary and comprehension to construct upon (Knight-McKenna, 2008; Whitaker, Harvey, Hassell, Linder, & Tutterrow, 2006), initially students will rely on teacher modeling of decoding and decomposition of words into phoneme segments; however, eventually the student will be able to implement those skills independent of scaffolding or at least with progressively less support (Archer, Gleason, & Vachon, 2003). Decoding strategies result in automaticity, therefore the easier words are identified, the more cognitive power is available to construct meaning, making fluency the channel from word recognition to comprehension (Hasbrouck & Tindal, 2006; Hook & Jones, 2002) and facilitating insightful, more profound connections with the text (LaBerge & Samuels, 1974). Fluency is an imperative factor to complete reading achievement and necessitates a devotion of instructional time.

Reading fluency is defined as the ability to read text quickly, accurately, and with proper expression (NRP, 2000. pp.3-5). Fluency is characterized as reading at an appropriate speed with minimal mistakes and with expressiveness that mimics spoken language (Stahl, 2004). Because of the finite amount of cognitive abilities available at a given time, fluency is indicative of available comprehension (Rasinski, 2003). It stands to reason then that when the brain’s cognitive processes are not depleted by decoding they are instead available for comprehension (Chard, Vaughn & Tyler, 2002; Fuchs, Fuchs, Hosp & Jenkins, 2001; Fuchs, Fuchs, & Maxwell, 1988). Fluency is often viewed as a crucial factor for achieving reading comprehension. According to research findings, students with and without disabilities benefit from various types of fluency instruction, including the importance of repeated readings to the growth in fluency (Mercer, Campbell, Miller, Mercer & Lane, 2000; Therrien, 2004; Therrien & Hughes, 2008).

Fuchs (2001) suggested that teaching practices should be influenced by what research shows improves reading performance. Therefore, if oral reading fluency is a strong predictor of
student performance it should be included in classroom practice. Two researched interventions shown to positively impact fluency are repeated reading (RR) and listening passage preview (LPP); (Skinner, Cooper & Cole, 1997; Therrien, 2004).

After repeated oral reading, students need to discuss the elements of the passage and discuss story elements with a teacher. This combination stimulates gains in reading achievement in students whose reading ability ranges from below basic to advanced (National Reading Panel, 2000). Rashotte and Torgesen (1985) studied repeated reading by means of three conditions: repeated reading with low word overlap, repeated reading with high word overlap, and no repeated reading. The repeated reading conditions with high and low word overlap had the most gains (35.3 to 33 words per minute, respectively) demonstrating that repeated reading is an effective way to promote reading fluency.

Listening Passage Preview (LPP), occasionally referred to as modeling, is an additional intervention that has proven to be effective in promoting student reading fluency (Daly and Martens, 1994; Skinner et al, 1997). With listening passage preview, the support offered from the modeling of a partner or teacher reduces anxiety in the struggling student and an increase in automaticity can be seen. The student becomes more at ease and able to comprehend rather than using excess brainpower on laboriously decoding individual words (Van Bon, Boksebeld, Font Freide, & Vanden Hurk, 1991).

Oral reading fluency can be used as a primary tool in the identification of below-basic readers, as well as a tool to measure appropriate yearly growth, and to identify areas of strength and weakness. If deficits are shown, additional probing may ascertain the basis creating the difficulty and offer alternate instructional strategies (Hasbrouck & Tindal, 2006). Children vary
in the way they receive information and finding areas of deficit is critical to implementing differentiated instruction that utilizes a student’s natural strengths and fills in the gaps when completing a task that utilizes a deficit strategy. The goal of reading fluency is not words correct per minute, but the development of comprehension (NPR, 2000). In the end, as educators our goal is not to create students who mindlessly call words without the movement and beauty of the written word, but rather, students who finish reading a book and feel as though they have made a new friend, visited a new land, or been on an exciting adventure and their lives are better for it.

**Summary**

Students being raised in poverty are at risk of failure in reading for a number of reasons that are both cognitive and environmental. These students need high expectations and specialized instruction to overcome their obstacles and be successful. Economically-disadvantaged students come to school with a deficit in language acquisition. The language environments of poor families and the strong connection between hearing and reading further exacerbate the problem. These students need exposure to prosodic reading. One possible intervention, that doesn’t require additional personnel or impact the instructional time of the classroom teacher, is repeated reading with listening using recorded stories.
CHAPTER 3

Research Methodology

Research Questions and Null Hypothesis

The following research questions and their corresponding null hypothesis relating to reading performance of economically-disadvantaged, emergent readers, and the use of auditory reinforcement as an intervention were addressed:

1. Does the use of auditory reinforcement during repeated readings improve the reading performance of economically-disadvantaged, emergent readers?

   Ho1. Reading performance, in all three areas: fluency, comprehension, and prosody, will improve as a result of the use of auditory reinforcement.

2. Does one area of reading achievement improve more than the others as a result of the treatment?

   Ho2. There is no significant difference in the gains shown in one area of reading performance.

   Null Hypothesis. Listening to recorded stories has no effect on reading achievement.
Participants

The children in this experiment attended a public PreK-5 elementary school in Eastern Tennessee. Three kindergarten classrooms participated in this study. There were approximately 20 students in each class ages 5-7. Class A and Class B were the participants, and Class C served as the control group. The students were primarily Caucasian with limited social and economic backgrounds. The participating classrooms were located in a school with a student body of approximately 400 students. The school is a Title I school with 65% of the student body receiving free and reduced lunch. The participants in this experiment were selected through the non-probability sampling technique of convenience sampling. The students in these classrooms were randomly assigned by the principal. The researcher was a teacher in the same school. The classroom teachers implemented the treatment and the school’s Instructional coach administered the fluency and comprehension checks. This method was used to ensure that assessments were administered at regular intervals to the group receiving experimental treatment and that the treatment was applied according to the prescribed method defined by the author of the intervention. This method also ensured that no bias on the part of the researcher influenced the delivery of the intervention or collection of the data.

Materials

Carbo Power Pak Primer-B and CDs: Who Ate All the Cookies?, Teaching Baby Sister, Did You Ever See?, I Love to Play in the Mud, Simon Says, Monkey Gets Dressed, Ants at a Picnic, A Present from Grandma, Riddle, Riddle, Bumble Bee, The Baby is Sleeping, Banana in Your Ear, Spots, Snowflakes Falling, A Funny Hat, Three Little Kittens, You Scared Me, Tickling Ben, Letters on the Fridge, I Dare You, and In the Grand Parade (see Appendix A).
Curriculum Based Measures Mid-Year Word Reading Assessment (see Appendix B).

Developmental Reading Assessment, 2nd Edition; Development of the DRA2 (DRA) was based on what educators and the extant research literature identified as being key characteristics and behaviors of good readers. The DRA2 is based upon a number of premises, which were drawn from a variety of sources including the research literature concerning reading development and instruction. The following reliability analyses were conducted on DRA2: (a) Internal Consistency Reliability, (b) Passage Equivalency, (c) Test-Retest Reliability, and (d) Inter-Rater and Expert Rater Reliabilities. DRA2 is a valid measurement of accuracy, fluency, and comprehension as evidenced by the following validity measurements: (a) Criterion-Related Validity, (b) Construct Validity, and (c) Content Validity (see Appendix C).

Others. Other materials include the following: Hamilton Electronic Deluxe Listening Center and stopwatch.

Design

This quasi-experiment used a one-group, times-series design. Because the study only examined one dependent variable over a length of time, the researcher used linear regression to determine the effect of the treatment. Linear regression also allows the researcher to demonstrate predicted outcomes when presenting data to educators who might use the intervention with struggling readers. The regression line provides reliable future predictions about what educators can expect when using this intervention as part of classroom practice. Linear regression attempts to model the relationship between two variables by fitting a linear equation to observed data. One variable is considered to be an explanatory variable, and the other is considered to be a dependent variable. According to Nau (2016), a valuable numerical measure of association
between two variables is the correlation coefficient, which is a value between -1 and 1 indicating the strength of the association of the observed data for the two variables. A linear regression line has an equation of the form \( Y = a + bX \), where \( X \) is the explanatory variable and \( Y \) is the dependent variable. The slope of the line is \( b \), and \( a \) is the intercept (the value of \( y \) when \( x = 0 \)).

In order to answer research question one, a comparison to a control group was needed. In each class, students were tested using Curriculum Based Measures standardized testing to determine word reading fluency achievement levels before the intervention began. Additionally, within each class, the lowest six achievers in the word reading fluency (WRF) measure of the mid-year Curriculum Based Measures assessment were identified (see Appendix B). These lowest six represented a traditional low reading group that was not responding to the traditional classroom reading instruction methodology. These six, from each class, were tracked as part of the whole class achievement data and separately, as non-analytic readers, to determine what affect the repeated reading with listening intervention had on that group. The researcher used a t-test to analyze the data of this group. The paired t-test is appropriate for data in which the two samples are paired in some way (Moore & McCabe, 2006). This type of analysis is appropriate for three separate data collection scenarios:

- Pairs consist of before and after measurements on a single group of subjects or patients.

- Two measurements on the same subject or entity (right and left eye, for example) are paired.

- Subjects in one group (e.g., those receiving a treatment) are paired or matched on a one-to-one basis with subjects in a second group (e.g., control subjects).
The confidence interval associated with a paired t-test is the same as the confidence interval for a one-sample t-test using the difference scores. The resulting confidence interval is usually examined to determine whether it includes zero. The basic assumption for the paired t-test to be valid when you have small sample sizes is that the difference scores are normally distributed and that the observed differences represent a random sample from the population of differences (Moore & McCabe, 2006).

The dependent variable in this experiment was reading achievement. The independent variable was listening to the recorded stories.

**Procedures**

Upon receiving approval to begin data collection, all the students in the identified kindergarten classrooms were administered the Developmental Reading Assessment by the school Instructional coach to determine baseline WPM scores. This instrument was used because it has built in cut off scores to identify reading ability and does not require subjective input from the test administrator. The Instructional coach administered the DRA because the coach has been trained to administer it properly and to interpret the results. The researcher did not administer the tests in order to avoid selection bias. After the baseline was obtained, the students began listening to recorded books in April. Under the recommended program use of the recorded stories, each student listened to the specially recorded story for 10-15 minutes per day. After three days of listening to the same story, the student read the story to a teacher and then the student and teacher discussed the story for comprehension enhancement. Fluency and comprehension checks were administered every three days to obtain both WPM and
comprehension scores. At the end of the experiment, there were six measurements of reading achievement to analyze the effect of the treatment.

Limitations

Potential limitations in this experiment included student absences, motivation, interest in material, and the transient nature of this school’s population. The one-group, times-series design cannot determine if other variables such as participant’s age, maturation, parental education, parental involvement, social reinforcement, learning style, or test sensitivity contributed to the outcome.

Data Analysis

By using the one-group, times-series design, the researcher obtained a baseline and five data points of the dependent variable to plot onto a Y-axis of dependent variable measures. By using a linear regression analysis of the measurements before and after the treatment, the researcher assessed the effect of listening to recorded stories on the performance of the participants. If the hypothesis, that listening to recorded stories increased a struggling reader’s fluency and comprehension is correct, then a positive linear correlation occurred. Because reading achievement includes three aspects, the researcher also disaggregated the data to determine if listening to recorded stories had a greater effect on a single aspect of reading achievement more than the other two aspects.

Summary

The quantitative research strategy used for this study was a one-group time-series design. Baseline achievement scores were obtained using Developmental Reading Assessment. Students
listened to recorded stories for three days and then read aloud to the Instructional Coach and answered comprehension questions. The students were tested every three days for fluency and comprehension. All data points were placed on the Y axis and the researcher used linear regression to determine the progress of students after the treatment. The results of this study will help practitioners address the needs of struggling readers under the current time and personnel constraints in the classroom.

The researcher chose this particular research study because as a practitioner the researcher feels the tension created by accelerating standards and declining student performance. More is being asked of educators and students at a time when students’ home environment decreases academic readiness. The researcher also feels the tension created by an academic system that no longer meets the needs of the majority of students. As an educator, the researcher operates under the belief that the responsibility of an educator is the determine student ability and then work with that student to demonstrate one year’s growth in one year’s time. Under this assumption, the researcher can no longer conduct class whole-group leaving the high students bored and the low students confused. The researcher needs academic strategies that will address the needs of the lowest functioning students in the class without impeding the necessary progress of the whole class.
CHAPTER 4

Results of the Data Analysis

Introduction

The purpose of this study was to determine if an auditory reinforcement would increase students’ performance on the three aspects of reading: fluency, comprehension and prosody. Data collection consisted of one Developmental Reading Assessment cold read (see Appendix C) to determine a baseline WPM score, and five additional WPM scores obtained from stories in the recorded set series (see Appendix A). The recorded stories instrument was developed by National Reading Styles Institute.

The children in this experiment attended a public PreK-5 elementary school in Eastern Tennessee. Three kindergarten classrooms participated. There were 19 students in class A, 20 students in class B and 19 students in class C ages 5-7. Class C served as the control group. The students were primarily Caucasian with limited social and economic backgrounds. The participating classrooms were located in a school with a student body of approximately 400 students. The school is a Title I school with 65% of the student body receiving free or reduced lunch.

Linear regression was used to determine if a positive linear correlation existed between the exposure to recorded stories and performance on WPM when reading aloud.
The three classes that participated in this experiment were heterogeneously mixed; however, Class A had a high population of low scores on the baseline assessment, Class B was evenly distributed into high, middle, and low, and Class C was split evenly into high or low scores on the baseline assessment. These same trends were seen in the mid-year standardized Curriculum Based Measures Assessment (see Appendix B).

Findings

**Research Question 1.** Does the use of auditory reinforcement during repeated readings improve the reading performance of economically-disadvantaged, emergent readers?

A linear regression line was created to show the achievement of each class in the study. Each class made progress to varying degrees as noted below and illustrated in the following graphs (see Figure 4.1, 4.2, 4.3). Class A and Class B utilized an auditory reinforcement during repeated readings, and Class C served as the control group, participating in repeated readings without the use of an auditory reinforcement.

**Fluency Achievement**

Class A, had the lowest coefficient of determination, r squared, at 43 percent (see Figure 4.1). Therefore, the null hypothesis was rejected. This class improved their WPM scores per story as follows: 12.3 words after story one, -5 words after story two, 1.3 words after story three, 2.7 words after story four, and .3 of a word after story five (see Table 4.1). Rate of improvement was determined using the formula: ending WPM score-beginning WPM score/ length of time. Class A had the highest gains among the three classes on stories one, four and five. All classes displayed a negative growth after story two; however, Class A had the highest drop in words.
accumulated during that three day span. Overall, this class achieved the highest average of additional WPM per week as a class at 8.75 words per week.

Figure 4.1

The first two data points in Class A’s regression chart could be considered outliers based on the remaining four data points. This class most closely represented the group of students the researcher was interested in analyzing and the data points subsequent to the outliers show a strong correlation between the intervention and positive achievement.
Class A had the largest population of low performing readers on the baseline assessment. This class had 15 students that scored below 10 WPM on the baseline compared to Class A and Class B that only had 8 students each scoring below 10 WPM on the baseline assessment. The researcher included a growth score because of the inequity in reading achievement across the three kindergarten classes. An examination of raw achievement data would produce a skewed version of the results of the treatment.

Class B, had the highest r squared coefficient at 65 percent (see Figure 4.2). Therefore, the null hypothesis was rejected. This class improved their WPM scores per story as follows: 7 words after story one, -3.7 words after story 2, 6 words after story three, .7 of a word after story four and -1 word after story five (see Table 4.2). This class displayed neither the highest or lowest gains in WPM over any three day span, and in fact, were the middle achievers on every measure of daily improvement rate. Class C had an average weekly gain in WPM of 6.75 words, which is lower than Class A but higher than Class C.

### Table 4.1

*Class A WPM Averages and Improvement Rate*

<table>
<thead>
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<th>Number of Recorded Stories</th>
<th>Average WPM per week</th>
<th>Growth per story in WPM</th>
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<td>42</td>
<td>2.7</td>
</tr>
<tr>
<td>5</td>
<td>43</td>
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</tbody>
</table>
Table 4.2

**Class B WPM Averages and Improvement Rate**

<table>
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<th>Number of Recorded Stories</th>
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<th>Growth per story in WPM</th>
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<td>-1</td>
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</table>

Class C had a r squared coefficient of 56 percent (see Figure 4.3). This class had daily improvement rates in WPM as follows: 3 words on story one, -3.7 words on story two, 9.7 words
on story three, 0 words on story four, and -2 words on story five (see Table 4.3). This class had the lowest gain in weekly words per minutes as a class at 5.25 words.

Table 4.3

<table>
<thead>
<tr>
<th>Number of Recorded Stories</th>
<th>Average WPM per week</th>
<th>Growth per story in WPM</th>
</tr>
</thead>
<tbody>
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<td>20</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>31</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>-3.7</td>
</tr>
<tr>
<td>3</td>
<td>47</td>
<td>9.7</td>
</tr>
<tr>
<td>4</td>
<td>47</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>41</td>
<td>-2</td>
</tr>
</tbody>
</table>

Research Question 2. Does one area of reading achievement improve more than the others as a result of the treatment?
Comprehension Achievement

The researcher also used the instrument’s included comprehension questions to determine the effect of auditory reinforcement on comprehension achievement. Each story utilized three comprehension questions to assess student understanding (see Appendix A). Achievement scores were higher in both of the participating classes compared to the control group (see Table 4.4).

The human brain has a finite amount of cognitive processing power available at any given time. When those processes are burdened by decoding, comprehension suffers. The comprehension score comparisons show the difference in a group of students who had an auditory reinforcement to help with decoding and those who exhausted those cognitive resources on decoding.
<table>
<thead>
<tr>
<th>Number of Recorded Stories</th>
<th>Comprehension Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>83</td>
</tr>
<tr>
<td>2</td>
<td>77</td>
</tr>
<tr>
<td>3</td>
<td>80</td>
</tr>
<tr>
<td>4</td>
<td>91</td>
</tr>
<tr>
<td>5</td>
<td>87</td>
</tr>
<tr>
<td>Class average</td>
<td>84</td>
</tr>
<tr>
<td>Class B</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>80</td>
</tr>
<tr>
<td>2</td>
<td>95</td>
</tr>
<tr>
<td>3</td>
<td>98</td>
</tr>
<tr>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>88</td>
</tr>
<tr>
<td>Class average</td>
<td>92</td>
</tr>
<tr>
<td>Class C</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>65</td>
</tr>
<tr>
<td>2</td>
<td>64</td>
</tr>
<tr>
<td>3</td>
<td>76</td>
</tr>
<tr>
<td>4</td>
<td>79</td>
</tr>
<tr>
<td>5</td>
<td>68</td>
</tr>
<tr>
<td>Class Average</td>
<td>70</td>
</tr>
</tbody>
</table>
**Prosody Achievement**

By nature, prosody is not quantifiable, so the researcher surveyed the participating teachers and the Instructional Coach that administered the fluency checks to determine the impact of the intervention. Both of the participating teachers, along with the Instructional Coach reported that Class A and Class B mimicked the speech patterns of the recorded story when reading the accompanying story. According to the teachers, their readings of those specific stories were more prosodic than other stories read as part of the kindergarten curriculum. Class C’s teacher reported that the words included in the recorded story set were uncommon to many of the stories that are usually exposed to and thus negatively impacted the prosody of the majority of her class.

**Non-Analytic Learner Achievement**

The researcher was primarily concerned with the achievement of non-analytic learners in this intervention. The researcher used mid-year Curriculum Based Measures scores to determine the bottom six readers from each Kindergarten class. These lowest six were representative of the lowest classroom reading group and was least responsive to regular classroom reading instruction, which consists primarily of phonics. The members of this group were also identified as economically disadvantaged by their qualification for free or reduced lunch. This group was included in the classroom scores and then disaggregated separately to compare the achievement of the participants compared to the control group.

The total number of words gained by this group of participants in Class A was 111 percent of the gains made by the control group. Class B had gains that were 118 percent of the gains made by the control group (see Table 4.5).
<table>
<thead>
<tr>
<th>Non-Analytic Readers</th>
<th>WPM Improvement Rate Over Entire Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>5.5</td>
</tr>
<tr>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
</tr>
<tr>
<td>Class B</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>11.25</td>
</tr>
<tr>
<td>2</td>
<td>4.75</td>
</tr>
<tr>
<td>3</td>
<td>5.25</td>
</tr>
<tr>
<td>4</td>
<td>3.5</td>
</tr>
<tr>
<td>5</td>
<td>9.25</td>
</tr>
<tr>
<td>6</td>
<td>6.25</td>
</tr>
<tr>
<td>Total</td>
<td>40.25</td>
</tr>
<tr>
<td>Class C</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4.5</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>2.25</td>
</tr>
<tr>
<td>4</td>
<td>0.5</td>
</tr>
<tr>
<td>5</td>
<td>1.5</td>
</tr>
<tr>
<td>6</td>
<td>3.75</td>
</tr>
<tr>
<td>Total</td>
<td>18.5</td>
</tr>
</tbody>
</table>
The researcher also used a paired t-test to analyze the WPM improvement rate of the participants compared to the WPM improvement rate of the control group. Pair 1 was a comparison of Class A to the Control Group (see Table 4.6). Pair 2 was a comparison of Class B and the Control Group (see Table 4.7).

Table 4.6
Paired t-test output for Class A and Control Group WPM

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. 2 tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
<td>Upper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 1</td>
<td>6.5</td>
<td>3.49</td>
<td>1.43</td>
<td>2.83</td>
<td>9.33</td>
<td>2.07</td>
<td>8</td>
</tr>
</tbody>
</table>

The Class A mean WPM gain (M=6.50, SD=3.49) was significantly greater than zero, t=2.07, and two-tailed p=0.07, providing evidence that the intervention is effective in increasing WPM. Therefore, the null hypothesis is rejected.

Table 4.7
Paired t-test output for Class B and Control Group WPM

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. 2 tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
<td>Upper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 2</td>
<td>6.71</td>
<td>2.95</td>
<td>1.20</td>
<td>3.61</td>
<td>9.81</td>
<td>2.47</td>
<td>9</td>
</tr>
</tbody>
</table>

The Class B mean WPM gain (M=6.71, SD=2.95) was significantly greater than zero, t=2.47, and two-tailed p=0.04, providing evidence that the intervention is effective in increasing WPM. Therefore, the null hypothesis is rejected.
The data on this subgroup’s comprehension scores was also disaggregated. The group of non-analytic learners from Class A had comprehension scores that were 58 percent higher than the control group. The non-analytic learner subgroup from Class B had comprehension scores that were 77 percent higher than the control group (see Table 4.6).
Table 4.8
Achievement of Non-Analytic Subgroup in Comprehension

<table>
<thead>
<tr>
<th>Non-Analytic Subgroup</th>
<th>Average of Comprehension Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Class A</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>83</td>
</tr>
<tr>
<td>2</td>
<td>58</td>
</tr>
<tr>
<td>3</td>
<td>93</td>
</tr>
<tr>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>5</td>
<td>93</td>
</tr>
<tr>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>Average</td>
<td>82</td>
</tr>
<tr>
<td>Class B</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>93</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>87</td>
</tr>
<tr>
<td>4</td>
<td>86</td>
</tr>
<tr>
<td>5</td>
<td>86</td>
</tr>
<tr>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Average</td>
<td>92</td>
</tr>
<tr>
<td>Class C</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>66</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>87</td>
</tr>
<tr>
<td>4</td>
<td>73</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>73</td>
</tr>
<tr>
<td>Average</td>
<td>52</td>
</tr>
</tbody>
</table>
The researcher also used a paired $t$-test to determine the effect of the intervention on comprehension achievement of the Class A non-analytic subgroup (see Table 4.9), and the Class B non-analytic subgroup (see Table 4.10).

Table 4.9

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>$t$</th>
<th>df</th>
<th>Sig. 2 tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 1</td>
<td>82.17</td>
<td>12.95</td>
<td>5.29</td>
<td>68.57 Exceeds (95.76)</td>
<td>1.94</td>
<td>6</td>
<td>0.10</td>
</tr>
</tbody>
</table>

The mean comprehension gain for Class A (M=82.17, SD=12.95) was significantly greater than zero, $t=1.94$, and two-tailed $p=0.10$, providing evidence that the intervention is effective in increasing comprehension achievement. Therefore, the null hypothesis is rejected.

Table 4.10

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>$t$</th>
<th>df</th>
<th>Sig. 2 tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 2</td>
<td>92</td>
<td>6.72</td>
<td>2.74</td>
<td>84.94 Exceeds (99.79)</td>
<td>2.69</td>
<td>5</td>
<td>0.04</td>
</tr>
</tbody>
</table>

The mean comprehension gain (M=92, SD=6.72) was significantly greater than zero, $t=2.69$, and two-tailed $p=0.04$, providing evidence that the intervention is effective in increasing comprehension achievement. Therefore, the null hypothesis is rejected.
Summary

The $r^2$ squared coefficient for all classes showed a positive linear correlation with different strengths for each class respectively as follows: Class A at 43 percent, Class B at 65 percent, and Class C at 56 percent (see Figures 4.1, 4.2, and 4.3). All readers demonstrated growth also at varying amounts respectively as follows: Class A at 8.75 words per week as a class, Class B at 6.75 words per week as a class, and Class C at 5.25 words per week as a class. Class A scores were 67 percent higher than the control group in WPM, and Class B scores were 29 percent higher than the control group. Data also showed a difference in comprehension achievement as follows: Class A class had a comprehension average of 84, Class B had a comprehension average of 92, and Class C had a comprehension average of 70 (see Table 3.4). Class A comprehension scores were 20 percent higher than the control, and Class B comprehension scores were 31 percent higher than the control group. The disaggregated data associated with the lowest six performers from each class on the mid-year standardized Curriculum Based Measures assessment showed higher gains in the participant groups, Class A and B, as compared to the control group, Class C, as follows: WPM improvement in Class A was 39 words and 40.25 words in Class B compared to 18.5 words in Class C. The $t$-test mean gain of 6.50 for Class A and 6.71 for Class B was significantly greater than zero and provided evidence that the intervention is effective in increasing WPM. Comprehension score averages in Class A were 82, 92 in Class B, compared to 52 in Class C. WPM scores for Class A were 111 percent higher than the control group, and Class B scores were 118 percent higher than the control group. Comprehension scores for Class A were 58 percent higher than the control group and Class B scores were 77 percent higher than the control group. The $t$-test results for comprehension in Class A showed a mean of 82.17 with a standard deviation of 12.95. The $t=1.94$ and two-tailed
p=0.10. Class B showed a mean of 92 with a standard deviation of 6.72. The $t=2.69$ and two-tailed $p=0.04$. Therefore, the null hypothesis was rejected.

Gains for all participating students significantly exceeded the gains made by the control group. Research question one asked if the use of an auditory reinforcement during repeated reading would improve the reading performance of economically-disadvantaged, emergent readers. All readers showed gains, as would be expected based on the scientific evidence that repeated readings will produce gains; however, the gains made by the participating group that included an auditory component, were statistically more significant than the control group. The use of the auditory reinforcement created significantly higher gains in fluency and comprehension. Research question two asked if one area of reading achievement would improve more than the others as a result of the treatment. The gains made by the participants as a whole, and the gains shown in the disaggregated group of non-analytic learners, were more statistically significant in the area of reading comprehension.
CHAPTER 5

Conclusions, Implications and Recommendations

America is experiencing an interesting phenomenon as we become a society of written communicators. As our communication method transitions from a predominantly oral mode to predominantly written modes, i.e. email, instant messages, text messages, tweets, etc., children of all backgrounds are being negatively impacted from the loss of oral receptive and expressive language exposure and development. Students in poverty, whose home language environments are hampered by parental depression and absenteeism, are particularly at risk for these oral language deficits. This negative effect is further complicated by the fact that our academic standards have increased dramatically over the last decade and continue to require more of our youngest learners with little to no regard for their readiness to learn to read. The lack of rich oral language environments during language acquisition, which occurs prior to entering the formal educational setting, is putting American students at the greatest deficit of reading readiness at the same moment they are being asked to achieve at the highest levels.

Poverty is the greatest challenge facing the American education system, and being raised in poverty has negative cognitive effects that hinder academic achievement. Without a proper language environment, children do not have the language skills necessary to succeed in reading. The purpose of this study was to determine if an auditory reinforcement would increase students’ performance on the three aspects of reading: fluency, comprehension and prosody. Research questions were:
1. Does the use of auditory reinforcement during repeated readings improve the reading performance of emergent readers?

2. Does one area of reading achievement improve more than the others as a result of the treatment? This research was conducted to provide guidance for kindergarten teachers as they support the development of reading skills in economically disadvantaged emergent readers.

**Research Question 1.** Does the use of auditory reinforcement during repeated readings improve the reading performance of economically disadvantaged emergent readers?

Repeated Reading is a proven intervention that increases the WPM of all readers. This assertion was confirmed in this research. All the participants and the control group were exposed to repeated reading and all readers showed gains in their WPM scores (see Figures 3.1, 3.2, and 3.3). This research wanted to determine if the addition of an auditory reinforcement would cause additional growth specifically for readers who demonstrated the least amount of growth from regular classroom instruction. The gains made by participating students significantly exceeded the gains made by the control group in all areas of reading performance. The auditory reinforcement was effective in increasing the fluency, comprehension and prosody of the participating students to a statistically significant level over the control group.

Current educational practice heavily relies upon the use of phonics, an analytic model to teach reading. Many students are receptive to this model and using it are able to achieve academically. However, there is a population of students that are not responsive, or at least less responsive, to this model. The economically disadvantaged subgroup demonstrates limited cognitive resources due to home language environments which develop the foundation for language acquisition. Classroom teachers need alternative interventions to meet the needs of
these learners; however, many teachers that serve economically disadvantaged students work within the confines of tight budgetary resources. The intervention introduced in this research project required minimal investment in resources and required no additional personnel to implement.

Many teachers have forsaken the use of a listening center and drastically reduced the amount of time spent reading book aloud in primary education in order to spend more time in direct instruction. This practice, while well intentioned, negatively impacts the reading achievement of our students. Sometimes the practice that seems to be too simple can have the greatest impact on student success. Students cannot become successful readers without proper modeling. Educators have to provide daily opportunities for students to hear prosodic reading during teacher read-aloud and to develop their sight word base through constructed listening experiences.

**Fluency Achievement**

When comparing the baseline WPM scores of all three classes, Class A had noticeably lower scores. Only four of the 19 students scored in double digits. The remaining 15 students had WPM scores of less than ten. Classes B and C had only 8 students per class that scored under ten WPM on the baseline. During the intervention, Class A demonstrated the most growth out of the three classes after stories 1, 4, 5, and the most overall class growth in the entire intervention of 8.75 words per week. The disaggregated group from this class also showed the most growth overall in WPM with an 8.25 word improvement rate. Class A also represented the largest population of low achieving readers on the baseline assessment. This class was the strongest
representation of the students the intervention sought to benefit and the resulting data supports that these students benefitted the most from the intervention.

Gains in both classes that participated in the intervention, Classes A and B were higher than the control group. When examining WPM, the control group, Class C, gained 5.25 words per week. Class B gained 6.75 words per week. Over the course of one school year, 36 weeks, this would yield 54 additional words to a student’s usable language. Class A had even higher gains at 8.75 words per week and would yield an additional 126 words of usable language over the course of one school year.

The greatest challenge for most classroom teachers is the lack of time to provide one-on-one interventions to meet the diverse needs of a classroom population. Often the lowest achievers need the greatest amount of extra time; however, those additional minutes of intervention too often focus on utilizing a model that the students have been unresponsive to during regular instruction. This intervention not only requires no additional teacher time, but requires minimal resources and results in significant gains.

The results of this experiment lead to the encouraging conclusion that we can help our students make gains in reading achievement even when we cannot spend one-on-one time in individual instruction. This is not to assert that struggling students should only be exposed to one intervention. A balanced program of direct individual instruction should be supplemented by a daily experience of listening to a recorded story while tracking the words to build a usable sight word bank.

**Research Question 2.** Does one area of reading achievement improve more than the others as a result of the treatment?
On all three measured aspects of reading: fluency, comprehension and prosody, the participants made greater gains than the control group. All educators seek to maximize instructional time. This intervention showed gains in all aspects of reading achievement making it a valuable use of student educational time. The results of the linear regression analysis and the $t$-test analysis showed statistically more significant gains in comprehension over fluency; although the gains in fluency were also statistically significant.

**Comprehension Achievement**

The human brain has a finite amount of cognitive resources available at any given time. When those resources are depleted decoding words, comprehension suffers. The introduction of an auditory stimulus alleviates the strain on cognitive resources created by decoding reallocating those resources to comprehension.

Comprehension gains exceeded the control group in both of the participating classes, and the disaggregated set of non-analytic readers. This is useful information for struggling readers when content knowledge is dependent upon reading. Students who struggle in content area subjects because the vocabulary and text complexity depletes cognitive resources could benefit from the opportunity to listen to content information presented through a recording. These students could receive the information by following along in their textbook while listening to a recording of the text and their available cognitive resources could be redirected to comprehension.

**Prosody Achievement**

Prosody can be thought of as an outward indication of the relationship between fluency and comprehension. When students are able to call the words in a text with the ease of spoken
language and understand the story well enough to include the intonations and inflections that give the story movement, then they have achieved prosody. Prosodic reading must be modeled. The recorded set of stories provided in this study served as models of how the story should sound and both the Instructional coach and the classroom teachers of the participants indicated a noticeable improvement in the prosody of the participating students.

**Non-Analytic Learners**

The participants from this group benefitted the most from the intervention. As a group, their growth scores in WPM and Comprehension were higher than the class scores. In WPM, Class A scored 67 percent higher than the control group compared to the non-analytic group from Class A which gained 111 percent over the control group. Class B had a class percentage of 29 percent higher than the control group and their non-analytic group scored 118 percent higher than the control group. In comprehension, Class A was 20 percent higher than the control group and the non-analytic subgroup scored 58 percent higher than the control group. Class B scored 31 percent higher than the control group and their non-analytic subgroup gained 77 percent over the control group.

**Summary**

The purpose of this study was to determine if repeated reading with listening would increase the reading performance of economically-disadvantaged students. Data analysis of WPM, comprehension, and prosody suggests positive correlations between the intervention and achievement scores, specifically for a subgroup of non-analytic learners. The implications for practice align with the research conducted for the review of literature. The economically disadvantaged population is continuing to increase. In order for today’s students of poverty to
gain success in reading and academic success, they will need every possible support that public schools can provide. The results of this study present an intervention that teachers can implement without the necessity of extra personnel and with minimal financial investment.

As an educator, the researcher is encouraged that meeting the needs of all the students in my classroom is not the impossible task it often seems. The researcher has been an upper elementary content area teacher and the possibility of delivering that content to struggling readers through recordings so that cognitive processes are not depleted on decoding, but are available to comprehend the themes and content of the text is encouraging. If primary grade teachers work to build a usable work bank in non-analytic readers utilizing an auditory reinforcement and upper elementary educators have tools to implement for students who have already passed through the grade levels without a functioning reader level then together we can meet the needs of the students in our buildings.

Sometimes the job of an educator seems impossible. We have to fix problems that were created long before we became part of the equation, but practitioners should be encouraged that significant gains can be made through seemingly simple interventions. Sometimes it really is the little things that make the biggest difference.

**Recommendations**

**Recommendation 1**: Classroom teachers should ensure that all students have the opportunity to listen to recorded stories. The use of a listening center as a center rotation would benefit all learners. Teachers should also take special care to ensure that students who don’t
respond successfully to phonics instruction receive concentrated amounts of time listening to recorded stories as an intervention tool.

**Recommendation 2:** Content area teachers who need students to understand information that is presented above their reading level should provide the opportunity for students to listen to recordings of the textbook or other complex texts to improve comprehension.

**Recommendation 3:** School libraries should open up to pre-school children in their district for story hours and opportunities to interact with language and text. This opportunity for future students to hear prosodic reading and witness modeling of engaging reading will positively impact their language acquisition.

**Recommendation 4:** Community programs, such as Dolly Parton’s Imagination Library, should investigate the opportunity to offer their books digitally, as an app, that parents could play so that their children could listen to the stories as they follow along with the screen or the hard copy of the book.

**Recommendation 5:** Further research could be conducted into the word form area of the language center to determine the connection between listening and the attachment of sound to symbol.

**Recommendation 6:** Researchers could use alternate statistical testing to determine the impact of teacher effect and other variables on the progress of emergent readers using repeated readings with listening.

**Recommendation 7:** A researcher could study the comprehension achievement of upper elementary students in content areas when their texts were delivered through recordings.
**Recommendation 8**: Further long-term research should be done into the amount of time non-analytic readers need the auditory reinforcement before their usable word bank creates independence.

**Recommendation 9**: A district-wide research study on the effect of repeated reading with listening on economically-disadvantaged, emergent readers should be conducted.

**Reflections**

Often students who struggle with language acquisition are written off as unable of achieving reading success. The teachers who serve these students have full classrooms and limited resources. In the current academic environment, educators cannot afford to impede the progress of the group, as a whole, to spend the needed individual time with struggling students.

The results of this study suggest that classroom teachers can help their students even under the current academic conditions. No difficult choices between which group of students deserve to have their individual needs met will have to be made.

It is important for classroom teachers to realize that no skill in reading is innate and each skill must be taught with constant modeling. Careful consideration should be given to what is chosen to include in daily practice. Classroom teachers need to model all components of reading achievement. Students must have the benefit of hearing their teacher read aloud to model prosodic reading, to point out comprehension strategies, and to gain content information above the student’s reading level. The students’ daily practice should balance activities in which they work to increase their own fluency, and in which they work to improve comprehension. Students should also be given the opportunity to listen to a variety of texts while tracking print.
Primary classrooms must be language rich environments in order to offset the deficits seen from the home language environment. Practitioners should be encouraged that small modifications to daily schedule and practice can produce measurable gains for all students.
References


http://dx.doi.org/10.1017/s030500998003456


http://dx.doi.org/10.1111/1467-8624.t01-1-00383


http://dx.doi.org/10.1080/00220671.1995.9941181


http://dx.doi.org/10.1111/1467-8624.00612


Appendix A

Recorded Story Set
Who Ate All the Cookies?

"Who ate all the cookies?" asked the Little Red Hen.

"Not I," said the Dog.  
"Not I," said the Cow.  
"Not I," said the Pig.

"And who ate all the pie?"

"Not I," said the Dog.  
"Not I," said the Cow.  
"Not I," said the Pig.
"And who drank all the milk?"

"Not I," said the Dog.
"Not I," said the Cow.
"Not I," said the Pig.

"Who would like some lunch?"

"Not I," said the Dog.
"Not I," said the Cow.
"Not I," said the Pig.

"Why not?" asked the Little Red Hen.

"I'm full," said the Dog.
"I'm full," said the Cow.
"I'm full," said the Pig.

"I think I know why," said the Little Red Hen.
Figure 3

WHO ATE ALL THE COOKIES?
Questions

1. This story is about a Dog, a Cow, a Pig, and:
   a. a Little Red Hen.
   b. a Big Bad Wolf.
   c. a Big Rooster.

2. The Dog and Cow and Pig do not want any:
   a. spoons.
   b. lunch.
   c. naps.

3. The Little Red Hen thinks they:
   a. broke the bed.
   b. broke the table.
   c. ate all her cookies and pie.
Teaching Baby Sister

"Say, Mama. Can you say, Mama?"

"Ma-ma. Ma-ma."

"Good girl. Say, Daddy. Can you say, Daddy?"

"Da-da. Da-da."

"Good girl. Say, Mama and Daddy. Can you say, Mama and Daddy?"

"Ma-ma. Da-da. Ma-ma. Da-da."

"Good girl. Now say, Kitty. Can you say, Kitty?"

"Kee."

"No. Say, Kitty."

"Kee. Kee."

"Can you say, Kitty cat?"

"Kee cat."

"Good girl."
Now, say, milk.
Can you say, milk?”

“Mo.”

“No, it’s milk.”

“Mo! Mo! Mo!”

“Milk!”

“Mo! Mo! Mo!”

“I think you want some.
I think you want some milk.
Would you like some milk?
I’ll give you some milk.
You’re a good girl!”
TEACHING BABY SISTER

Questions

1. This story is about a baby sister who is:
   a. learning to walk.
   b. learning to talk.
   c. taking a nap.

2. The baby sister can't say "milk." She says "____."  
   a. mo  
   b. much  
   c. monkey

3. The storyteller:
   a. is a baby.  
   b. is a good teacher.  
   c. is lazy.
Did You Ever See?

Did you ever see a monkey
swing this way, swing that way?
Did you ever see a monkey
swing this way, swing that?

Swing this way, swing that way,
swing this way, swing that way.
Did you ever see a monkey
swing this way, swing that?

Did you ever see a tiger
creep this way, creep that way?
Did you ever see a tiger
creep this way, creep that?

Creep this way, creep that way,
creep this way, creep that way.
Did you ever see a tiger
creep this way, creep that?
STORY 3

Did you ever see an elephant
walk this way, walk that way?
Did you ever see an elephant
walk this way, walk that way?

Walk this way, walk that way,
walk this way, walk that way.
Did you ever see an elephant
walk this way, walk that way?

Were you ever in a jungle,
a jungle, a jungle?
Were you ever in a jungle,
a jungle like that?
DID YOU EVER SEE?
Questions

1. This story is about:
   a. three animals in the jungle.
   b. three fish in the water.
   c. three birds in the jungle.

2. Did you ever see a tiger _____ this way?
   a. sneeze
   b. creep
   c. shop

3. Many animals live:
   a. in the jungle.
   b. by the sea.
   c. in a hose.
I Love to Play in the Mud

Mud. Mud. Mud.
I love to play in the mud.
Mud on my feet.
Mud on my face.
Mud in my ears.
I love mud.

Do you want to play?
Do you want to play in the mud?
Why not?

Mud on your feet.
Mud on your face.
Mud in your ears.
Nice mud.
Soft mud.
Gooshy mud.
Figure 11

Mud on your feet.
Mud on your face.
Mud in your ears.
Nice mud.
Soft mud.
Gooshy mud.

Why not?
Mud is yucky.

Mud is not yucky!
Mud is nice.
Mud is soft.
Mud is gooshy.

Mud is for me.
I love to play in the mud.

STORY 4
I LOVE TO PLAY IN THE MUD

Questions

1. This story is about a pig that:
   a. loves mud.
   b. eats feet.
   c. goes to school.

2. Mud is nice and soft and _____.
   a. yellow
   b. gooshy
   c. salty

3. Mud is nice:
   a. to eat.
   b. to play in.
   c. to save.

1 = Main Idea  2 = Recalling Details  3 = Drawing Conclusions

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Simon Says

Simon says walk.
Simon says walk slow.
Simon says walk slow as an elephant.

Simon says jump.
Simon says jump high.
Simon says jump high as a kangaroo.

Simon says creep.
Simon says creep low.
Simon says creep low as a tiger.
Simon says hop.
Simon says hop fast.
Simon says hop fast as a rabbit.

Simon says yawn.
Simon says yawn big.
Simon says yawn big as a hippopotamus.

Simon says clap.
Simon says clap loud.
Simon says clap loud as a seal.

Now stop.

Ha, ha, you’re out!
SIMON SAYS
Questions

1. This story is about:
   a. a monkey.
   b. a game called “Simon Says.”
   c. a cow.

2. Simon says _____ big as a hippopotamus.
   a. sing
   b. yawn
   c. jump

3. When you play this game, never do anything unless:
   a. Simon says.
   b. you want to.
   c. it’s hot.
Appendix B

Curriculum Based Measures Assessment
## Word Reading

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© 2006 University of Oregon
Figure 17

Assessor Copy
Student Name: ___________________________ Date: ________________

Form K-1

Word Reading

Directions: Place the "Word Reading Student Copy" probe in front of the student and say, "Please read from this list of words. Read across the page and then on to the next row." Demonstrate by sweeping your finger from left to right across the first two rows of words. Start timing when the student begins reading. Mark a bracket ] after the last word read. If a student self corrects, write S.C. above the word and count as correct. If they say an incorrect word, mark a slash through the word, and count as incorrect. If they hesitate more than 3 seconds, supply the word and count as incorrect. If a student skips a words, circle the word and count it as incorrect.  

Note: This is a 60 second timed test.

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# Correct _____

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### 2015-16 Kindergarten Reading Screener & Benchmark Recording Form

#### Middle of Year and End of Year

**EasyCBM**

- **Teacher:** Class A
- **School:** PS - phoneme segmenting
- **Grade:** K
- **WRF** - word reading fluency

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**Total Points Possible:**

- **Middle of Year:** 100 110 70 60
- **End of Year:** 100 110 70 60

**Withdrawn**
### 2015-16 Kindergarten Reading Screener & Benchmark Recording Form
Middle of Year and End of Year

**EasyCBM**

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## 2015-16 Kindergarten Reading Screener & Benchmark Recording Form

### Middle of Year and End of Year

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Appendix C

DRA Baseline Assessment
The "I Like" Game

0  "I like oranges," said the boy.
6  "Do you?"

8  "No," said the girl.
12 "I like apples.
15 Do you?"

17 "No," said the boy.
21 "I like bananas.
24 Do you?"

25 "No," said the girl.
30 "I like grapes.
33 Do you?"

35 "No," said the boy.
39 "I like ice cream.
43 Do you?"

45 "Yes," said the girl.
49 "I like ice cream, too!"