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An Examination of the Key Factors that Impact the Gender Gap in Reading

By
Phyllis Pegram

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Gardner-Webb University
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Approval Page

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Abstract

An Examination of the Key Factors that Impact the Gender Reader Gap in Reading.
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Achievement/Reading Motivation/Teacher Perceptions/Gender Disparities in Reading

This dissertation was designed to provide information on the factors that impact the male gender gap in reading. Disparities between the reading achievement of boys and girls have long been a concern for educators. There are many reasons boys are lagging behind in reading such as the lack of male role models, stereotyping, lack of interest in reading material, and differences in brain development in boys and girls. Peer pressure also plays a role in the reading success of boys and reading may be considered a feminine activity. Another reason boys do not perform well in reading is their great need for physical movement on a regular basis.

Students and teachers in three elementary third-grade classrooms were given a reading motivation survey. The constructs of the survey include reading efficacy, reading challenges, reading curiosity, reading involvement, the importance of reading, reading work avoidance, competition in reading, recognition for reading, reading for grades, social reasons for reading, and compliance. The 10 teachers also participated in an interview conducted by the researcher.

An analysis of the data revealed there was no significant difference in reading motivation between boys and girls. The data also showed that the reading motivation score had no impact on the end-of-grade reading score. In the teacher interviews, there were several factors teachers felt impacted the reading scores of boys. The lack of male role models and the classroom behavior of boys were two of the factors that were mentioned most often when talking with teachers about the reading performance of boys.

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Chapter 1: Introduction

Children's literacy development determines future successes in reading and writing (Wang, 2012). Regardless of the content area, literacy skills are a universal key to academic success (Salomone, 2003). Given the critical importance of reading in today's society, it is important that students develop a positive attitude toward reading at a young age. Children's understanding of the purposes for learning to read and developing a positive attitude toward reading are fundamental to their attitudes as adults (Davies & Brember, 1998). Reading attitude also fulfills a pivotal role in development and uses lifelong reading skills (Lazarus & Callahan, 2000). Reading and writing have always been an integral foundation for classroom learning. Reading is a fundamental skill needed to succeed in the modern world (Faust & Kandelshine-Waldman, 2001). Boys have lower average class rankings and receive fewer honors. In 2009, 70% of all high school valedictorians in the United States were female. The male gender gap in reading is an international concern researchers are striving to address and solve (Watson, Kehler, & Martino, 2010).

Statement of the Problem

Traditionally, girls have outperformed boys in reading and writing. Although this gap may be minimal in kindergarten, it grows as students continue their education (Perie, 2005). According to the 2004 National Reading Assessment measured by the United States Department of Education, the gap between boys and girls, only slightly noticeable in fourth grade, left boys 14 points behind girls during their twelfth-grade year (Perie, 2005). On the 2008 test, female students continued to have higher average reading scores than male students at all three ages. The gap between male and female fourth graders

was seven points in 2008. By the twelfth grade, there was an 11-point gap between males and females (Paton, 2012).

Within the last few years, there has been a growing concern about the declining literacy performance of boys. Due to their poorer reading and writing skills, boys are less successful students than girls (Smith & Wilhelm, 2002). Hernandez (2011) found that students who are not reading proficiently by the third grade are four times more likely to leave high school never having received a diploma.

There are many reasons researchers and educators have given for the gender gap between males and females, but there are no definite answers to the gender difference. Boys are lagging behind girls on standardized reading tests in all 50 states. In some states, boys are trailing behind girls by as much as 10 percentage points. The cause for concern is that this is an unmistakable and clear national trend. Boys are not doing as well as girls in reading (Smith & Wilhelm, 2002).

School reform put literacy demands into earlier and earlier grades, and boys are at a developmental disadvantage when it comes to early literacy challenges (Kimmel, 2010b). In crumbling public schools in poor neighborhoods, as well as in elite schools around the country, boys are not doing as well academically as girls (Tyre, 2008).

The crises facing boys today is as damaging and dangerous as that which faced young women twenty years ago. We've known that more boys have trouble reading and writing than girls do and the answer begs . . . what are we going to do about it? (Tyre, 2008, p. 56)

“The problem is that without awareness, support, and effective instruction, they may never catch up” (Whitmire, 2010, p. 89). Within the last few years, there has been a

growing concern about the declining literacy performance of boys. Due to their poorer reading skills, boys are less successful students than girls (Whitmire, 2010). Children do much of their reading in school. Thus, recognition, grades, and competition may figure prominently in their motivation for reading. Struggling readers assume they are responsible for their reading difficulties. Recurring failures to succeed and self-concept issues often complicate a student's ability to learn any of a variety of reading skills. Sckunk and Zimmerman (1997) found that students who doubt their ability to learn give up quickly when faced with new challenges. Girls tend to pick up reading earlier, while boys typically need more time.

Many educational experts are observing a trend that scores of boys are not reading, and this is directly contributing to a significant achievement gap between boys and girls. Unfortunately, research also indicates reading motivation declines for males during middle school years (Unrau & Schlackman, 2006). From elementary through high school, males are reading at lower levels than females. This deficiency in reading takes a toll on success in other subjects as well because students do not have the foundation needed to read the material. Children cannot do well in math and science unless they have a good foundation in reading and writing (Tyre, 2013).

Becoming critically literate offers opportunities, for boys as well as for girls, to arrive at new insights into personal and social relations; to understand the construction of their own selves as contemporary social subjects; and to recognize the ways in which various social language practices have become naturalized and normalized within everyday talk and action. (Alloway & Gilbert, 1997, p. 50)

Reading is fundamental to function in today's society. One of every five adults in

the United States cannot read a simple story to their child. During the last 20 years, over 10 million Americans reached the twelfth grade without learning to read at a basic reading level (National Center for Education Statistics [NCES], 2006). These literacy problems occurred before they reached high school. In 2000, only 32% of fourth graders tested as proficient in reading (Kleinfeld, 2009).

Given the enormous amount of research indicating the importance of reading, this study focused on three key questions that add to the literature regarding ways to help students, particularly boys, improve their reading skills and investigated the role motivation plays in reading success.

Research Questions

1. How do third-grade boys' motivation and attitude toward reading compare to third-grade girls' motivation and attitude toward reading in Schools A, B, and C?
2. How do the motivation and reading attitude of third-grade male students correlate with their reading achievement on the North Carolina end-of-grade reading test in third grade and the next year in fourth grade?
3. What factors are perceived by teachers as influencing male reading achievement?

This was a mixed method empirical research study in which both quantitative and qualitative methods were used to collect more varied data and strengthen the validity of the final conclusions. The participants for the study were third-grade students from three elementary schools in a small rural district in the foothills of North Carolina. Students were given the Motivation for Reading Questionnaire (MRQ) which is a 53-question

survey on motivation for reading. Third-grade teachers from these three schools also participated in the study by answering a teacher survey developed by the researcher and participating in an interview with the researcher, which gave teachers an opportunity to discuss issues they feel are factors in the reading achievement of boys.

Significance of Study

The purpose of this sequential mixed-methods study was to examine the factors teachers perceive as influential in male reading achievement. This study also examined the effect motivation and reading attitudes of third-grade students have on their North Carolina end-of-grade reading scores. Specifically, the study analyzed student survey answers on motivation and compared the differences between girls and boys. Third-grade teachers completed a survey about male reading performance and motivation as well as took part in an interview with the researcher concerning their feelings about male students and how they impact classroom instruction. A correlation study was also completed to see if there is a significant relationship between the motivation and reading attitude of males and their North Carolina end-of-grade reading test scores for 2013-2014 and 2014-2015. The study also addressed the perceptions and expectations third-grade teachers have of male students and shows if there is a correlation between teacher beliefs and test scores on the North Carolina end-of-grade reading test of male students.

Delimitations of Study

This study was limited to third-grade students in the three elementary schools in the district used for the study. This district was chosen because of the size of the district and the convenient location to the researcher. Socioeconomic status and race were not considered in this study.

Limitations of Study

There were several limitations that affected this study. The superintendent may not have been willing to grant permission to conduct the survey with these three schools in the district. The 10 third-grade teachers could have chosen not to be a part of the research. The surveys given to the students were dependent on the teacher giving the survey to each child and returning them to the researcher. The sample size may not be as large or as representative as desired based on participation and completion of the surveys by the third-grade students from each of the three schools. Parents had to give permission for their child to participate in the survey, and they could have denied permission. The teachers were responsible for giving the survey to their students, collecting the surveys, and turning them in to the principal. The cohort of students in the fourth grade have a different teacher which could have influenced their fourth-grade end-of-grade reading test. These are all factors the researcher was unable to control. It was also out of the control of the researcher that some students had moved and other students were new to the school and did not have the previous year's data.

Boys and College

According to Brozo (2002), the male achievement gap is linked to poor reading habits and literacy skills that boys developed in the elementary and middle school grades. While the reading skills gap at age 13 is eight points, it grows to 11 points by age 17. Most high school boys rarely read for pleasure and prefer to spend time playing video games or basketball or even hanging out with friends. Students who have spent less time reading are at a disadvantage when reading becomes a significant part of college (Brozo, 2002).

College-level classes require critical thinking and reflection, and students are struggling with basic comprehension. According to Draves (2005), one of the clearest indicators of this decline is the number of young men who are choosing to pursue college degrees. The college attendance and completion rate for males continues to decline. Over the past 3 decades, women have had higher performance in high school than males, which leads them into college at a higher rate (Donhun, 2007). As few as 35% of today's college graduates are men, which is down 51% from 1981 and 76% from a century ago. Less males enrolling in college is not a problem confined to the United States. There is a striking similarity in percentages and numerical differences in all five advanced countries. Figure 1 displays the percentage of female and male students who received college degrees from 1966 through projections in 2019.

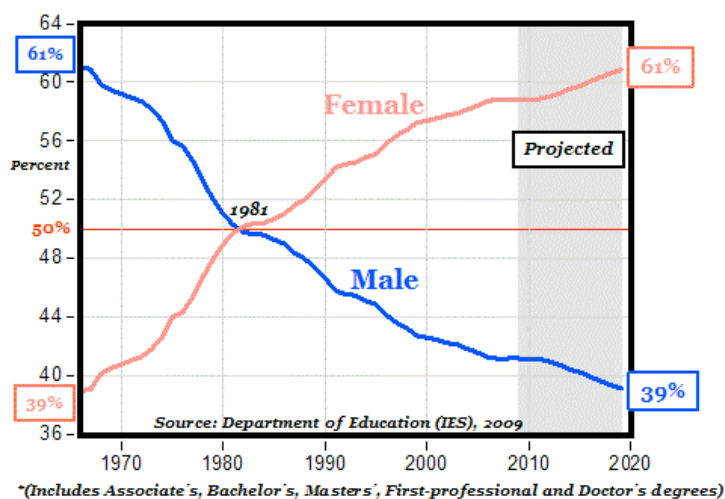


Figure 1. Percent of All College Degrees.

*Female vs. Male, 1966-2019.

However, it is not only college courses but even the job market that demands high-level reading and writing skills, as Tyre (2008) pointed out: “There are no illiterate scientists, tech geeks, and engineers, but as educators have been making these grand

discoveries and creating soaked literacy curricula in response—boys have been losing ground in the very skills we now know are paramount” (p. 60).

Whitmire (2010) believed the world has become more verbal and boys have not. In their traditionally strong subjects of science and math, boys are hit at a young age with new educational approaches, stressing high-level reading and writing goals they are developmentally unable to achieve. Today’s heightened academic demands have been hard for boys, who tend to develop more slowly than girls. Boys fall behind in the early grades and never catch up. By the time boys get to high school, large numbers are lagging behind and losing interest in reading, and the heavy workload and high school reading requirements make matters worse (Whitmire, 2010).

Literacy matters for children’s future success. Reading, writing, and speaking intersect with everything in life: character development, emotional intelligence, and physical fitness (Gurian, 2001). Reading is essential for successful brain development in children, and stories help build character and emotional development. There are few career areas in which literacy skills of reading, writing, critical thinking, and even anecdotal storytelling are not essential for success (Gunning, 2005).

Early literacy skills are a significant factor in every child’s educational progress, but gender differences in literacy acquisition are not considered adequately enough in many classrooms across the nation. The gender of a student and how it may influence specific learning inclinations are not often taken into consideration to any significant degree when a child enters school for the first time (Gurian, 2001). In the last several years, an alarming trend has developed regarding children’s reading abilities. Nationally, there is a significant discrepancy between reading scores of our boys and girls (Gurian &

Stevens, 2005). While boys still perform comparatively well in math, underachievement in reading has become more pronounced. Throughout the United States and the industrial world, boys are behind girls in literacy testing and grades. An international study determined that the reading gap, with girls performing better, is three times larger than the math gap, with boys just barely holding the lead (Gurian, 2001). Other studies indicate that young boys are reading at a level a year and a half behind that of girls. Boys routinely perform at much lower levels than girls on standardized reading assessments. Thirty-nine percent of the United States third-grade boys read below a “basic level” and have little or no mastery of the knowledge of skills necessary to perform work at each level (Lee, Perie, Grigg, & Donahue, 2007).

This reading gap is significant because reading may help keep children engaged in school and foster skills that help them later in life (Kafka, 2013). Physicians and educators agree that reading contributes to sharpening one’s concentration, memory, creativity, and vocabulary. Young readers often evolve into strong writers, speakers, and thinkers; skills that are highly valued in our society (Kafka, 2013).

By the end of fifth grade, boys who are poor readers are at a disadvantage from which they will never recover. In middle school, state test results tell us that the number of adolescent boys who struggle with literacy is shockingly big (Tyre, 2008). Boys are less successful students than girls due to their weaker reading skills. Poor reading skills and the learning difficulties caused by them often predict unemployment, crime, homelessness, and drug problems (Brozo, 2002). Girls learn to read and understand language sooner than boys, which helps to explain why early remedial classes have more boys than girls.

Boys are lagging behind girls on standardized reading tests in all 50 states, the research suggests. In some states, boys are trailing girls by as much as 10 percentage points (Brozo, 2010). Whitmire (2010) stated that while girls beat boys in reading throughout the country, the genders are evenly split when it comes to proficiency in math. Sixty percent of “A” grades in United States schools go to girls. At the other end of the spectrum, 70% of D’s and F’s go to boys (Whitmire, 2010). The achievement gap in reading between boys and girls is alarming, but more disconcerting is the vast amount of boys falling behind in school. These boys are becoming involved in detrimental behavior and eventually dropping out of school altogether (Kafer, 2004).

A 2005 Department of Education study found that boys in the United States are 50% more likely to be held back in elementary school. While one fourth of girls drop out of school, nearly one third of boys drop out. These statistics are frightening enough; but couple them with the knowledge that 80% of convicted felons are high school dropouts, and you have a formula for the failure of young men. In kindergarten through Grade 12, boys are three times more likely to be expelled than girls (NCES, 2005).

In the United States, adolescent reading achievement lags behind the rest of the world. Two thirds of eighth and twelfth graders read below proficiency and lack the skills necessary for future success (Lee et al., 2007). There is a concern in the educational community regarding gender differences in reading, as girls regularly outperform boys. There is also concern about the consequences of low motivation for children engagement in reading and learning. Numerous research studies have highlighted the association between children motivation and reading achievement (Guthrie et al., 2004).

For the past 50 years, there has been a gap in the educational achievement of males and females in the United States, but which gender has been on top has fluctuated over the years (Perie, 2005). In the 1970s and 1980s, data showed girls trailing behind boys in a variety of academic performance measures, specifically in test scores in math and science.

However, data in the last twenty years shows the general trend of girls outperforming boys in academic achievement in terms of class grades across all subjects and college graduation rates, but boys scoring higher on standardized tests and being better represented in the highest paying science, technology and engineering fields. (Lee et al., 2007 p. 56)

It is important to address the gender achievement gap in education, because failure to cultivate academic talents of any one group will have aggregate negative consequences (Perie, 2005).

Women are underrepresented in STEM fields (science, technology, engineering, and math); and if men are underrepresented in the social sciences and humanities, both genders are missing opportunities to develop diverse skill sets that can help them in the workplace (Clark & Douglas, 2011). If the gender achievement gap in education continues to exist, so does the stereotype that medicine, science, and engineering are all “masculine” fields and that women belong in fields like teaching, counseling, or social work (Perie, 2005). This stereotype can lead to the image that women who pursue careers in the STEM fields are considered “nerdy” or “geeky,” and this can have a detrimental effect on the self-esteem of females who choose these fields (Perie, 2005).

The main difference between the present and past when it comes to girls

outperforming boys academically is that years ago, students not doing well in school did not suffer huge consequences due to a large number of well-paying blue collar jobs. In contrast, today those jobs have diminished; and doing poorly in school has a greater effect on a boy's future. Poor academic performance of boys is finally coming to the surface as a huge problem that both educators and parents have to fix (DiPrete & Buchmann, 2006).

Boys are leading the technology revolution. Boys are demonstrably more competent with new technology than girls. In several different studies across several different countries, boys score much higher on computer subjects as well as the related math and science subjects. More young men have technology-related occupations than young women (Draves, 2005). Differences between genders have not been fully explored regarding the best classroom environment for boys and girls to achieve a strong literacy foundation. Reading ability is becoming more and more necessary for us to flourish in our economy and contribute to our society. Boys and girls will need reading skills to perform their jobs, run their households, act as citizens, and conduct their personal lives as they become adults. Standing still regarding literacy is falling behind. If girls are rising to the new challenges and boys are not, that is cause for concern (Paton, 2012).

The problem is neither simple nor easy to define. Perie (2005) related biological as well as social aspects to the issue. Biologically, boys develop language skills more slowly than girls, although the differences appear to fade over time. Studies have also shown that women use more areas of the brain, while men tend to be more focused on particular areas for tasks. Connections between language and emotion center in the brain, and evolutionary developments influence relative confidence in self-expression and

character appreciation; both of which are aspects of reading comprehension and analysis (Smith & Wilhelm, 2002).

According to the Center on Education Policy (CEP, 2009), which analyzed data by gender, the lagging performance by boys in reading is the most pressing gender-gap issue facing our schools. In the CEP analysis, the gap between boys and girls was a cause for concern. Jack Jennings, CEP's president, stated that educators need to pay much greater attention to teaching boys the reading skills they need to succeed in early grades and throughout their education (Jennings, 2010). In an attempt to rectify the extreme literacy gap between boys and girls, Wales conducted research on the issues and came to these conclusions (Estyn, 2008).

The most crucial factor in explaining the greater difficulty that some boys have in coping with the demands of learning and teaching in school is that fewer boys than girls acquire the level of literacy necessary to succeed. Literacy is critical for educational success at school. Because more boys have trouble with literacy than girls, they also have problems in accessing the wider curriculum. This difficulty affects progress not only in subjects that are highly language-based, such as English and history but across the whole curriculum because reading and writing skills are essential in all subjects. By the age of 14, a significant minority of boys cannot keep pace with much of the work at school and experience an increasing sense of frustration and failure as a result. (Estyn, 2008, p. 4)

Definition of Terms

Achievement gap. The observed, persistent disparity on a number of educational measures between the performances of groups of students (The Glossary of Education

Reform, 2013).

Gender. Refers to the attitudes, feelings, and behaviors that a given culture associates with a person's biological sex (American Psychological Association, 2011).

Literacy. The ability to read, view, write, design, speak, and listen in a way that allows you to communicate effectively (Neilson, 2014).

Motivation. Factors that activate, direct, and sustain goal directed behavior (Nevid, 2013).

Self-efficacy. Relates to a person's perception of their ability to reach a goal (Bandura, 1997).

Stereotyping. A preconceived notion, especially about a group of people (Adem, 2016).

Feminism. The belief that women are and should be treated as potential intellectual equals and social equals to men (Baumgardner, 2000).

Summary

As Tyre (2008) stated in the following quote, the underperformance of boys in reading is a real concern that needs to be addressed: "Almost everywhere in the industrialized world, in places where boys and girls have equal access to education, the underperformance of males is not just an uncomfortable fact but a real and pressing problem" (p. 125). Literacy is crucial to success, and our boys are struggling to perform in reading. A big part of the problem is getting boys motivated to read. Education is important to all children, and we need to find a way to help our boys learn to like and be successful at reading. Promoting a lifetime love of reading should be one of the most important goals in schools (Sanacore, 2012).

Chapter 1 provided background information as to the importance of reading, key pieces of research considered foundational to the literature, and a brief discussion of the research methodology. In Chapter 2, a thorough discussion of the literature is provided to demonstrate the extreme importance of literacy for boys.

Chapter 2: Literature Review

Introduction

The purpose of this sequential mixed-methods study was to examine the effect motivation and reading attitudes of third-grade students have on their North Carolina end-of-grade reading scores. Specifically, the study analyzed student survey answers on motivation and compared the differences in answers of girls and boys. Third-grade teachers completed a survey about male reading performance and motivation as well as took part in an interview with the researcher concerning their feelings about male students and how they impact classroom instruction.

Reading and writing are critical skills in almost all areas of life. Males who underperform are at a disadvantage in the classroom and the workplace. The average high school grade point average is 3.09 for girls and 2.86 for boys (Whitmire, 2010). Boys are almost twice as likely as girls to repeat a grade. Boys are twice as likely to be suspended from school as girls and three times as likely to be expelled. Estimates of drop-out rates vary, but it seems that about one-quarter more boys drop out than girls. On standardized writing tests, 32% of girls are considered proficient, compared to 16% for males. The National Honor Society stated that 64% of its members and outstanding high school students are girls (Whitmire, 2010).

The National Literacy Trust (2006) research reveals a widening gender gap in boys' and girls' attitudes toward reading and writing. Of the 17,089 young people surveyed, girls read significantly more frequently than boys, with 39% of girls saying they read every day, compared with just 28% of boys. Twice as many boys as girls never write (8% boys vs. 4% girls). Our culture typecasts reading and writing as feminine

activities, and stereotypes and attitudes must change if we want our boys to achieve the same academic success as girls (National Literacy Trust, 2006).

This gap between the genders in writing and reading has increased over the years. Throughout their schooling, boys are less likely to earn good grades, take challenging courses, and be active in school. Besides trailing in academic performance, boys are more likely to drop out of high school, attend college, and go on for graduate degrees (Mortenson, 2006). The 2012 Boys Reading Commission report warned that this “gender gap” is widening, and the government should recruit male volunteers to pay weekly visits to schools to act as reading role models (Mortensen, 2006). This study answered the following research questions.

1. How do third-grade boys’ motivation and attitude toward reading compare to third-grade girls’ motivation and attitude toward reading in Schools A, B, and C?
2. How do the motivation and reading attitude of third-grade male students correlate with their reading achievement on the North Carolina end-of-grade reading test in third grade and the next year in fourth grade?
3. What factors are perceived by teachers as influencing male reading achievement?

Historical Background

One of the largest studies on gender differences in reading was conducted in Iowa in 1942 which came to the conclusion that boys in both elementary and high school were performing higher in reading comprehension than girls. The most recent results from reading tests from NCES (United States Department of Education, NCES, 2006) showed

girls outscoring boys at every grade level and age examined. Gender differences in reading are not confined to the United States. The Program in International Reading Literacy Study conducted in 49 nations in 2011 showed girls consistently outperformed boys in reading. According to the Program for International Student Assessment (2012), world wide gaps were evident between 15-year-old males and females (PISA, 2012).

According to Claudia Bauchmann, professor of sociology at Ohio State University, the main difference between the present and the past, when it comes to girls outperforming boys academically, is that years ago a boy not doing well in school did not suffer huge consequences due to the large number of well-paying blue collar jobs. Today, however, as those jobs have diminished, boys doing poorly in school has a greater effect on their future, so their poor academic performance is finally coming to the surface as a huge problem that both educators and parents have to fix. Parents, especially dads, should do their best to dispel any negative stereotypes associated with performing well in school or being intelligent (DiPrete & Buchmann, 2006).

Reasons for Gender Gap in Reading

While none of the researchers disputed the existence of the gender gap in reading, scholars disagree and debate the cause of the reading gap. Whitmire (2010) picked up the argument about the gender gap. Whitmire sought to separate boys' academic problems from the culture wars, noting that the gender gap in literacy is a worldwide phenomenon and appears even in countries where feminist movements are weak to nonexistent. Whitmire offered several reasons for boys' low reading scores including poor reading instruction (particularly a lack of focus on phonics) and too few books appealing to boys' interests. He also dismissed several explanations that are in circulation: video games,

hip-hop culture, too much testing, and feminized classrooms. Even if the educational system is not the source of the problem, Whitmire argued, “schools could be doing more to address it” (p. 44). Whitmire also felt that boys are hard-wired so they learn more slowly, perhaps because they evolved to fight off wolves more than to raise their hands in classrooms. This theory does not explain why boys have been sinking in recent decades (Whitmire, 2010).

The problem is that boys are an undifferentiated group, by simply being boys (Sax, 2005). Children who can and do read have learned to finetune reading as this kind of existential adventure. For them, reading has become a journey into the lives of others and also into the self.

The common sense view of why boys perform lower in reading starts from the assumption that either boys’ preferences in reading material are not available in the classroom, or boys see too few men reading to aspire them to be readers themselves. (Sax, 2005, p. 54)

Sommers (2000) stated that our boys are in a crisis.

The widening gender gap in academic achievement is real. It threatens the future of millions of American boys. Boys do not need to be rescued from their masculinity. But they are not getting the help they need. In the climate of disapproval in which boys now exist, programs designed to aid them have a very low priority. We should repudiate the partisanship that currently clouds the issues surrounding sex differences in the schools. We should call for balance, objective information, fair treatment, and a concerted national effort to get boys back on track. That means we can no longer allow the partisans of girls to write the rules.

(Sommers, 2000, p. 101)

Jon Scieszka, author of children's books such as *The Stinky Cheese Man*, *Time Warp Trio* series, and *Guys Read* believed that boys are slower to develop than girls biologically and, therefore, often have early struggles with reading and writing skills. On his website (www.guysread.com), he also said that the male way of learning, which tends to be action-oriented and competitive, works against boys in many classrooms.

According to Scieszka (2003), boys like to read for a purpose to find out how to do things like how to build a dirt bike or skateboard and that is not encouraged enough. Nonfiction reading is reading. Magazines, newspapers, websites, biographies, science books, comic books, and graphic novels are all reading material (Scieszka, 2003).

Many boys fail to see real-life applications in what they read. The literature read in language arts classes tells "stories" rather than providing useful information. Some boys stop reading because they think there is no practical value in reading (Brummit-Yale, 2013). Boys usually take longer than girls to develop comparable literacy skills. What is considered a grade-level appropriate reading skill for a girl cannot always be considered the same for a boy (Whitmore, 2010). Boys need more "teacher time" than girls do. Teachers are unable to give boys the one-on-one time they need. Therefore, they do not make as much progress as girls. Middle school boys believe reading is much harder than it was in elementary school and state that reading becomes less enjoyable as they become older. Many adolescent boys fail to see real-life applications in what they read. Literature read in language arts classes tell stories rather than provide useful information. Some boys stop reading because they think there is no practical value in reading. As they reach adolescence more and more, boys stop considering themselves

readers. Research on the reading attitudes of middle school boys shows that many consider themselves nonreaders. Reading is often stereotyped as a feminine activity. When boys reach adolescence, their gender identification becomes more important. If they believe reading is not a masculine activity, they will abandon it to demonstrate their masculinity (Brummit-Yale, 2013).

In their intensive study of boys' literacy lives in and out of school, Smith and Wilhelm (2002) included several observations about gender and literacy. Boys take longer to learn to read than girls and read less than girls (Smith & Wilhelm, 2002). Boys value reading less than girls and have much less interest in reading for pleasure. Boys increasingly consider themselves to be nonreaders as they get older and are less likely to respond overtly to their reading. Boys prefer active responses to reading in which they can be physically active. Smith and Wilhelm also found that allowing students a choice in their reading selection broadened text types read in class and encouraged boys' interest in reading itself. Boys put a lot of energy into avoiding reading, especially in classrooms where teacher judgments of reading proficiency were highly visible (Smith & Wilhelm, 2002).

Reoccurring themes for low reading achievement for boys include a lack of male role models in schools, cultural attitudes about gender expectations, disinterest in subject matter, lack of organization and planning for the future, learning styles, and the need for physical space and movement. Counter arguments have been brought up in the media claiming that there is no gender gap; however, statistics show that women have significantly surpassed men not only in high school graduation rates but in university enrollment and degree completion; and this trend is predicted to continue to increase

(United States Department of Education, NCES, 2006).

Using national longitudinal data to perform their analysis, Robinson and Lubienski (2011) investigated male achievement in reading, looking for when a gender gap first appeared and where in the distribution the gaps were most prevalent. As a country, the United States seems to have more of a gender gap in early elementary education than in most countries. One hypothesis to explain the literacy gap could be that the United States has first- and second-grade teachers who are female (Robinson & Lubienski, 2011). Another theory is that boys take longer to develop reading and writing skills, while mastery is expected in school at a much earlier age than ever before. Boys also tend to read less which may or may not be related to early struggles in this area. Less practice often translates into lower achievement. “Boys and girls use different parts of the brain to read so maybe we can tailor different kinds of instruction for boys and girls to eliminate the male literacy gap” (Clement, O’Donnell, Abel, Pekar, & Cutting, 2006, p. 152).

Brozo (2010) was aware that it is hard to try to motivate a reluctant boy to read and is a difficult and often frustrating task for parents and teachers. Peer pressure discourages a boy from reading, an activity that is not cool. His reluctance to read leads to a decline in his reading skills. The reluctance to read together with the consequent feeling of incompetence causes indifference towards reading; and this indifference accelerates the decline in boys’ reading skills. Boys prefer texts that have a purpose: getting information, making things, and helping others (Bronzo, 2010).

In Kafka’s (2013) article, she talked about how pressure exerts a negative influence on boys who do not see reading as cool and associate reading with being a nerd.

Male reading models are absent in their peer group and at home. Children are very influenced by what they see their parents doing, and there is a tendency to identify with the same gender. Overall, boys are less likely to seek out reading opportunities in the home. A primarily female school staff has an impact on a male's perception of reading and reading behavior. Reading may help to keep children engaged in school, and it fosters skills that help them later in life. Physicians and educators agree that reading helps to sharpen one's concentration, memory, creativity, and vocabulary (Kafka, 2013).

Environmental Factors

Environment plays a huge role in who we become. Measor and Sikes (1992) observed that most societies prescribe different activities and characteristics for males and females, which may be seen as natural by the people involved. Social and cultural patterns and the social characteristics of being man or a woman all contribute to the definition and role defined by society. Gender stereotypes are cultural constructions rooted firmly in perceived reality (Clifford, 1989). From the beginning, boys and girls are treated differently. Boys are given trucks, trains, and sports equipment; while girls are given dolls and strollers for play time. Boys are expected to be more rough and tough, and girls are expected to be dainty and sweet. Michael Kimmel, author of *The Boy Crisis*, explained how teenage boys' ideas of manhood are connected to academic disengagement. To fit in with their peers, boys might adopt a mentality that they do not care about success in school. "This blasé attitude reinforces an aversion to reading and learning in general" (Kimmel, 2010b).

The male literacy deficit does not solely affect poor boys; it affects boys from every walk of life. In a study conducted by psychology professor Judith Kleinfeld

(2009), she disaggregated the national achievement scores of twelfth-grade males and females by race and parental education. Among White high school seniors who had at least one parent who graduated from college, 23% of males and 7% of females scored below basic in reading. Six percent of White females with one parent who graduated from college scored below basic on writing; among males, one in four leaves high school lacking basic competency in writing (Kleinfeld, 2009).

Male Physical Activity

Another reason boys do not perform well in reading is their activity level and their inability to sit still for long periods of time. Boys are more physically restless than girls. Recess time has been reduced in schools in the push for better achievement and test scores (Gurian & Stevens, 2005). Even as we need to help boys read more and close the gap, we need to acknowledge and respect that they tend to want to be more active. Boys also seem to have lower levels of concentration. Boys can read, but they need to be moving around or to be doodling. They need to be doing something that is activating their brains (Guthrie et al., 1996). Girls are favored on assessments and seem to be more mature. In early years, girls are more likely to sit and play more readily than boys, who seem more generally active and less inclined to sit for lengthy periods of time. Boys have more active learning styles that are not compatible with literacy.

The energy that boys will expend on classroom projects in which they have ownership grows exponentially as they work on what they find useful and important, on what matters to them. Sustained engagement involves a deep exploration of ideas, capitalizing on the expertise of the students themselves, as they construct their own learning. It is often difficult to bring these embedded

inquiries to a close. These boys are caught up in their own efforts to share their learning, driven by the imperative of the quest. (Booth, 2002, p. 90)

Boys will likely need to read in shorter segments than girls of similar ages, so consider breaks in which they can run or be involved in other active play (Gurian, 2001). It takes longer to engage in a book than the internet, computer games, or social networking; they lose their reading stamina, and they do not see the need to keep up their reading skills. Boys are more active learners than girls and in the early years especially are happier to be outside building, constructing, and playing physically. Boys also generally take longer than girls to develop comparable literacy skills (National Literacy Trust, 2006).

Research indicates that boys tend to develop certain functional skills later than girls: attributes like attentiveness, persistence, focus, independent action, and eagerness to learn. Boys tend to have higher energy levels and greater drive to engage in physical activity, neither of which is conducive to learning in a traditional classroom (Gurian & Stevens, 2005). Boys provide lower estimations of their reading abilities than girls do. According to Smith and Wilhelm (2002),

- Boys value reading as an activity less than girls do.
- Boys have much less interest in leisure reading and are far more likely to read for utilitarian purposes than girls.
- Significantly more boys than girls declare themselves nonreaders.
- Boys spend less time reading and express less enthusiasm for reading than girls do.

Boys increasingly consider themselves to be nonreaders. “As they get older, very

few boys designate themselves as such early in their schooling, but nearly 50% make that designation by high school” (Smith & Wilhelm, 2002, p. 10).

What is considered a grade-level appropriate reading skill for a girl cannot always be considered the same for a boy (Tyre, 2008). Males need more “teacher time” than females. Larger classes of middle and high school teachers are unable to give boys as much one-on-one time; therefore, they do not make as much progress as girls. Middle and high school boys believe reading is much harder than it was in elementary school. Boys of all ages read less than girls, and many middle school boys consider themselves to be nonreaders. Tyre (2008) stated, “Watch out for teachers who complain that boys are too active, who clamp down on boys’ fantasy play, who allow boys to languish in reading and writing, who chastise boys for the poor organization and bad handwriting” (p. 22).

Sax (2007) tackled subjects as diverse as environmental factors that affect boys’ biological and physical conditions to the ways in which kindergarten curricular expectations have changed over the last 3 decades from more play-oriented learning to an academic focus on reading and writing.

One of the differences in boys and girls is that boys need space and movement to aid their learning, whereas girls have a greater need for opportunities to speak and plan in a cooperative environment (Gurian, 2001). Researchers agree that the reason boys get lower grades is not because they are not as smart as girls. While boys score higher in math and girls score higher in reading, overall the cognitive abilities of boys and girls are very similar. According to DiPrete and Buchmann (2006), the difference in grades lies in effort and engagement. Girls are more likely than boys to report that they like school and that good grades are very important to them. Girls also spend more time studying than

boys. Some believe that boys' lower engagement with school is a result of biological differences between males and females. Boys need to engage in rough and tumble play, get their hands dirty, build things, and read books about war, espionage, and sports if they are supposed to learn. Boys fail because schools do not give them enough opportunities to do boy stuff. Boys' underperformance in school has more to do with society's norms about masculinity than with anatomy, hormones, or brain structure. Boys involved in cultural extracurricular activities such as music, art, drama, and foreign languages report higher levels of school engagement and get better grades than other boys (DiPrete & Buchmann, 2006).

Reading Interests

It is unfortunate, but the current emphasis on test scores as a measure of reading success does not lend itself to sustainability nor does it engage boys (Hargreaves & Fink, 2006). As Sax (2007) asserted, there is "growing evidence that the intensive reading drills that now characterize early elementary education may disengage students, particularly boys," and such tasks are the foundation for success on standardized tests (p. 38).

In research conducted by Hall and Coles (2001), girls read more books about relationships and romance, while boys read more science fiction and fantasy, sports-related books, and war and spy stories. More females than males read for enjoyment outside of school, while males were more apt to read for information or to learn how to do something. Boys' literacy choices tend to give greater emphasis to taking information from the text rather than analyzing motivation or characterization (Hall & Coles, 2001).

According to Kindlon and Thompson (2000), boys are often considered to be a

challenge during reading instruction time as they turn their attention to their peers or other areas of the classroom and ignore the reading instruction. Interest is far more significant than readability. When students have a strong interest in what they read, they can frequently transcend their reading level (Worthy, Morman, & Turner, 1999).

Students who do not enjoy typical school texts often fail to engage in reading and may develop a lifelong aversion to reading. Even if they are not initially struggling readers, “reluctant readers tend to gradually lose some academic ground, because reading is related to increases in general knowledge and reading comprehension” (Williamson & Williamson, 1988, p. 208).

Girls read more than boys; even when ability and attainment were held constant, girls of a given ability group tended to do more voluntary reading than boys in the same group (Sax, 2005). Girls read remarkably few nonnarrative texts, whereas boys read considerably more nonnarrative than girls. Girls read more books about relationships and romance, while boys read more science fiction and fantasy, sports-related books, and war and spy stories. In Coles and Hall’s (2002) research, more females than males read for enjoyment outside of school, while males were more likely to read for information or to learn to do something. Boys’ literacy choices tend to give greater emphasis to taking information from the text rather than analyzing motivation or characterization (Coles & Hall, 2002).

In Stotsky’s (2012) article, he shared that differences in genre preferences are frequently cited as an explanation for differences in reading performance between boys and girls. Boys tend to read a wider number of genres over a broader range of topics than girls and are usually most interested in books and periodicals about hobbies, sports, and

informational resources (Smith & Wilhelm, 2002). Boys' preferred genres may not find their way into classrooms or library shelves because teachers are predominantly female, and teachers' own reading preferences are reflected in the books they select for their students (Stotsky, 2012).

Dutro (2002) stated that boys frequently view reading as a feminine activity, and this can reduce their motivation to read. Boys who view reading as a feminine activity tend to have formed this perception at a very early age. Teachers and parents may not recognize the types of material typically preferred by boys such as magazines, newspapers, and comic books as reading. When reading choices are made for boys, typically by mothers or female elementary school teachers, the materials often do not reflect their preferences and interests (Dutro, 2002).

Reading experiences need to occur throughout the day, not just during a literacy lesson. However, the boy who struggles with reading often finds himself observing but not fully participating in the school experience (Younger & Warrington, 2005). Engaging in his school community is a struggle, as he may lack the ability to read his environment and engage in instruction as his teachers may want him to. If the boy does not engage in the school experience, he may begin to withdraw from learning opportunities. At times, this may occur as early as kindergarten (Wigfield, Guthrie, Tonks, & Perencevich, 2004). The boy who withdraws from learning opportunities can begin to believe his lack of learning is his fault. Boys are more likely than girls to think that someone who reads is boring and a "geek," according to the National Literacy Trust (2006) research showing that almost a fifth of boys (18%) said that reading is more of a girl's activity. The research also found that boys are less likely to value learning and

reading (Clark & Douglas, 2011).

Brozo (2010) said boys are caught in a harmful cycle. Peer pressure discourages a boy from reading because reading is not considered “cool.” His reluctance to read leads to a decline in his reading skills. A boy’s reluctance, together with the consequent feeling of incompetence, causes indifference toward reading; and this causes the decline in the boy’s reading skills (Brozo, 2010).

Hammet and Sanford (2008) looked at the intersections and gaps between school literacies (mostly print-based texts) and out-of-school literacies (often nonprint texts, media, and technology-based texts) and the intersections that exist between gender, school literacy, and out-of-school “life” literacy. It is evident that boys can read but are selective in what they read; they use reading strategies they have adopted in school and have morphed them to help make sense of new literacies that appeal to them. Teachers need to transform their ideas about literacy to help boys recognize their strengths and move them beyond their own to broader, more global literacies. Teachers need to understand better their “morphing literacies,” critique the arguments that would position boys as failing, and remind themselves that there are multiple definitions of literacy and multiple paths to becoming literate. Teachers need to deepen their understandings of the subjectivity of literacies for both boys and girls given the sociocultural configurations from which they emerge. Teachers need to encourage their students to see the multiplicities of perspective and recognize the morphing of their literacy practices (Hammet & Sanford, 2008). Enjoyment of reading is statistically correlated with reading performance, and the hope is that making reading more enjoyable would get boys to read more, thereby raising reading skills (Stroud & Lindquist, 1942).

Reading Text Selection

An area that seems to be critical for stimulating reading success among young male readers is the choice of materials. According to Smith and Wilhelm (2002), boys differ from girls in the choices they make of reading material.

- Boys are more inclined to read informational texts, magazines, and newspaper articles.
- Boys are more inclined to read graphic novels and comic book.
- Boys tend to resist reading stories about girls, whereas girls do not tend to resist reading stories about boys.
- Boys like to read about hobbies, sports, and things they might do or be interested in doing.
- Boys like to collect things and tend to like to collect series of books.
- Boys read less fiction than girls.
- Boys tend to enjoy escapism and humor, and some boys are passionate about science fiction or fantasy (Smith & Wilhelm, 2002).

It is essential to provide reading material for males in their interest areas. Many children's books do not appeal to boys because they are written for girls. Attention has been given to finding books that appeal to boys by being more masculine focusing on sports, war, competition, and so on. This approach, however, brings up questions of stereotypes and reinforcing behaviors or attitudes which may not benefit students. Just as teachers should avoid "feminizing" boys by discouraging masculine characteristics, so too should they resist choosing books that match stereotyped views of boys' interests and capacities that may perpetuate those stereotypes and deny alternative interests (Smith &

Wilhelm, 2002). Boys prefer texts that have a purpose: getting information, making things, and helping others. In order to encourage boys to read, schools should expand their view of what is worthwhile reading and connect literacy instruction to boys' interests (Younger & Warrington, 2005).

Taking a simpler approach, Scieszka (2003) created *Guys Read*, a literacy program to connect boys with books they want to read. Based on Scieszka's experience as well as input from *Guys Read*, the program's website recommends books that boys say they like. Smith and Wilhelm (2002) also found that allowing student choice in their reading selection broadened text types read in class and encouraged boys' interest in reading. However, they also caution teachers to maintain a balance of self-selected and teacher-recommended or required books so students can nurture interests they bring to school as well as be encouraged to develop new interests. "Boys' interests not only transcend the stereotypes but are also surprisingly rich and varied" (Smith & Wilhelm, 2002, p. 94). While boys might resist reading texts assigned for class, they would often read similar types of texts on topics that interested them or texts recommended by a respected peer or family member. While the boys were passionate about the literate activities they pursued outside of school, they usually saw school literacy as a tool, not something to be passionate about (Scieszka, 2003).

The reason nonfiction texts tend to engage boys has much less to do with the text and much more to do with the connection these features encourage readers to make to the world (Smith & Wilhelm, 2002). These features include the length of text, visual elements, the level of challenge, and humor. Teachers and parents have said boys prefer stories with adventure, suspense, and fantasy and tend to read nonfiction stories and

nonnarrative informational books as well as newspapers and newspapers. If we do not teach reading and writing in a boy-friendly way, they will continue to fall behind (Gurian & Stevens, 2005).

According to Kucer and Tuten (2003), for boys there is a contrast between school reading and life reading. School reading is unconnected to their interests, and the texts are too long and too difficult; life reading is based on their interests and usually consists of short passages. Life reading can sometimes be challenging, but boys feel competent to read what they choose for themselves. In school, students read mostly books and textbooks; life reading involves media, video, television, music lyrics, internet sites, and popular culture magazines (Kucer & Tuten, 2003).

The Male Brain

Karges-Bone (2010) told how males and females use their brains in subtle yet importantly different ways. Boys often excel in right brain dominant skills requiring visual-spatial intelligence, while girls often employ more left brain skills resulting in enhanced language and verbal interactions. Boys typically use language to solve problems or complete tasks applying fewer words. Girls use language that is collegial and collaborative and use longer sentences and more expressive language (Karges-Bone, 2010).

Regardless of the debate over effects from differences in male-female brain structure, neuroscience research does show that what is more important in male and female brains are the differences in their sequence of development. Different regions of the brain develop in different sequences in different sexes (Lenroot et al., 2007). The differing maturation speed of the brain between boys and girls affects how each gender

processes information and could have implications for how boys perform in school (Sax, 2005). For reading, one theory points to differences between the brains of boys and girls. While girls' brains are more verbally oriented, often making reading skills easier for them, boys' brains are visually oriented (Lenroot et al., 2007). The areas of the brain involved in language and fine motor skills develop about 6 years earlier in girls. For boys, the areas of the brain involved in targeting and spatial memory mature about 4 years before girls. The average boy's brain is 10% larger than the girl's brain; her "corpus callosum" is significantly larger. The corpus callosum is the "bundle of nerves" that connect the brain's right and left hemispheres. These differences affect how boys and girls learn and why girls are capable of completing several tasks at the same time with seemingly little effort and may explain why boys are performing lower in reading (Lenroot et al., 2007).

Because there is no consensus on how much genetics, environment, and culture are responsible for the male achievement gap, it is hard to determine what should be done to solve the problem. What is known is that boys take longer to read than girls; they read less and are less enthusiastic about it; and they have more trouble understanding narrative texts yet are better at absorbing informational texts (Scieszka, 2003).

There are more differences between the same age girl and boy than there are between a 7-year-old girl and a 9-year-old girl (Sax, 2007). Girls, for instance, can acquire their complex verbal skills as much as a year earlier than boys. Thus, quite often a preschool girl reads faster and with a larger vocabulary than a peer boy does, and she speaks with better grammar. Educators need to begin to take the differences in sequence of brain development into account when planning instruction for boys (Karges-Bone,

1998). While brain scans indicate that female brains reach the halfway point in their full brain development by age 11, male brains, on average, do not reach that point until age 15. Brain development does not indicate any intellectual hierarchy; it merely illustrates the fact that the male and female brains are wired in slightly different ways, notably in the pace and timing of development (Karges-Bone, 1998).

Because a boy's prefrontal cortex develops much more slowly than a girl's, teachers and parents need to model these higher-level thinking skills. Teachers also need to understand that boys are going to act impulsively. Boys are mesmerized by movement, yet boys and girls are expected to sit still (Karges-Bone, 1998). Boys have a greater variability in many human characteristics than do girls. So boys and girls have different bell-shaped curves to describe their variability. Both bell curves have the same averages, but they have different peaks and slopes (Kleinfeld, 2009).

Cognitive crowding is the term given to the theory that male and female brains differ in lateralization, the functions of different sides of the brain which could be linked to gender (Reichert & Kuriloff, 2004). It does appear that girls are likely to have verbal ability in both hemispheres of the brain. Gender differences in talking can be seen as early as age 3, with girls using compromise and evasion to solve problems (Reichert & Kuriloff, 2004). Studies show a relationship between students' "handedness" and brain function. For example, left-handed students suffer learning disabilities at 10 times the rate of right-handed students, and males are more likely to be left-handed (Perry & Pauletti, 2011).

Girls can store more information in short-term memory, even if the information is irrelevant. Boys need to have a personal reason to remember. Even hours after birth,

girls respond more actively to faces than boys. Over 95% of children diagnosed as hyperactive are boys (Karges-Bone, 1998).

Studies show that boys learn differently than girls. Brain scans tell part of the story. In general, more areas of girls' brains, including the cerebral cortex (responsible for memory, attention, thought, and language), are dedicated to verbal functions (Gurian, 2001). The hippocampus—a region of the brain critical to verbal memory storage—develops earlier for girls and is larger in women than in men. That has a profound effect on vocabulary and writing. “In boys’ brains, a greater part of the cerebral cortex is dedicated to spatial and mechanical functioning. So boys tend to learn better with movement and pictures rather than just words” (Gurian, 2001, p. 53).

No one wants to take part in activities they are not good at doing. Boys who feel they are not good readers do not read on a regular basis and certainly do not want to read aloud in class (Limbrick, 2012). Boys provide lower estimations of their reading abilities than girls. One method of motivation is finding books that boys are interested in reading and extracurricular activities that are connected to the arts such as music or choir or being in a foreign language club or a drama group (Maccoby, 1988). There is an anti-intellectualism of young men, in which males think it is not cool to be smart or do your homework. Some boys think that academic disengagement is a sign of masculinity. “The less you can do in school, the less connected you are, the less interested you are, the more manly you are” (Kimmel, 2010a, p. 6).

Teachers have long recognized that motivation is at the heart of many of the pervasive problems they face in teaching young children to read. In a study conducted by Veenman (1984), teachers ranked motivating students as one of their primary overriding

concerns. A more recent national survey of teachers also revealed that creating interest in reading was rated as the most important area for future research (O'Flahavan, Gambrell, Guthrie, Stahl, & Alvermann, 1992). According to Guthrie et al. (1996), highly motivated readers generate their own literacy learning opportunities; and in doing so, they begin to determine their destiny as literacy learners.

Many boys say they want to go to college, but their expectations about what it will take to succeed are not realistic. They underestimate the work and effort they need to put forth to be successful. This helps to explain why 70% of valedictorians today are girls (DiPrete & Buchmann, 2006).

Baron-Cohen (2003) conducted much research on autism as well as differences in girls and boys. His research showed that girls begin speaking earlier than boys and by first grade are approximately one year ahead of boys in language development. Girls' speech is more cooperative, reciprocal, and collaborative; and they verbalize their feelings more readily than boys. Girls have half the risk of having language disorders than boys. Many of our teaching methods do not accommodate the boy's spatial mechanical brain in another essential way. Most of what students do in school involves language, from sitting and listening to lectures, working in groups, working on computers, research, and the myriad of reading and writing tasks they are asked to do each day. Because the female brain develops more quickly and has more area devoted to verbal functioning and most girls are inclined to sit still and stay on task, they usually do better at school in language skills (Baron-Cohen, 2003).

Lack of Male Role Models

According to Clifford (1989), the early part of our country's history describes

teaching as a male-dominated profession. In 1828, there was no such thing as a woman teacher. By 1870, two thirds of all teachers were female; and by 1900, three fourths of all teachers were female. When World War I began, over 50,000 men left the teaching profession never to return to teaching. By 1920, 86% of teachers were female (Clifford, 1989).

There are many concerns that a lack of male role models at home and school may be turning boys off reading at a young age. Contributing to this problem is the fact that men are especially underrepresented in elementary education. Only 10% of elementary classroom teachers are male, compared to 25% in middle school, and 45% in high school (Scieszka, 2003). In 2001, the National Education Association (2001) reported that only 9% of America's elementary school teachers were men. More than a decade later, the situation has not improved; the Bureau of Labor and Statistics reported that 18% of elementary and middle school teachers in America were men (Martino, 2006). Boys are failing to develop a love of reading during primary education because of a shortage of male teachers combined with an anti-book culture among many fathers (Paton, 2012).

The guidance of a male role model can help boys bridge the perceived differences between male and female characteristics. This guidance should include an understanding that a mixture of traits should be valued, appreciated, and accepted (Neu & Weinfield, 2007). The best way to help boys express their emotions is to model that same behavior in the home and school; however, the media is now becoming a major positive influence in this area. Educators, coaches, and parents alike can encourage boys that they do not always have to be the tough guy.

Socially, boys have few reading role models at home and school. Most librarians

and teachers are women; mothers read to children more frequently than fathers. Dee and Cohodes (2005) said one theory is that male and female teachers have unique biases on how they engage boys and girls in the classroom. For example, there is controversial evidence based on classroom observations that teachers are more likely to offer praise and remediation in response to comments by boys but mere acknowledgment in response to comments by girls. A prominent class of explanations for the gender gaps in student outcomes focuses on the interactions between students and teachers. Dee and Cohodes examined whether assignment to a same-gender teacher influences student achievement, teacher perceptions of student performance, and student engagement. This study's identification strategy exploits a unique matched pairs feature of a major longitudinal study, which provides contemporaneous data on student outcomes in two different subjects. Student comparisons indicate that assignment to a same-gender teacher significantly improves the achievement of both girls and boys as well as teacher perceptions of student performance and student engagement with the teacher's subject (Dee & Cohodes, 2005).

Similarly, cognitive process theories suggest that teachers may subtly communicate that they have different academic expectations of boys and often express distaste for reading as a passive, even feminine activity. Peer pressure may discourage boys from reading as well as prevent them from responding openly to questions that reveal their interest in reading and or emotions and characters (Jones & Dindia, 2004). One reason for some boys' lack of engagement with reading is their perception that it is a feminine activity.

If reading or other literature activities are perceived as feminized, then boys will

go to great lengths to avoid them. This is particularly true if the activities involve effort and the chance of failure, for incompetence and expending effort are also seen as feminine. (Smith & Wilhelm, 2002, p.13)

Research warned that there is a danger that female teachers will unconsciously choose books that are more attractive to girls (Dee & Cohodes, 2005). Male teachers as role models, particularly in elementary school and in feminized or “soft” subjects such as English, it is argued, are “better equipped to maximize boys’ attention and to develop particular relationships with boys to effectively enhance their participation in school-based literacy practices” (Martino & Kehler, 2007, p. 409). Boys are falling behind in reading because of a lack of male primary school teachers and the macho belief that reading is just for girls. Currently, 85-90% of teachers in primary schools are women which could be significant for boys’ achievement (Carrington & McGee, 2008). Boys need male role models in their lives that read on a regular basis. Boys identify with the same gender in learning and in extracting their world view. There should be conscientious efforts to attract males into the teaching professions. Attractive offers and a good reward system should be offered as males at times prefer to opt for the so-called male vocations or occupations. Career guidance for boys should be a matter of utmost importance to prevent them from dropping out of school or experiencing academic failure (Carrington & McGee, 2008). The key is for young people to have a male role model who shows them love and enjoyment for reading. The role model can be a father, brother, mentor, or older friend. Unless they see respected males reading, boys think reading is for girls.

Special Education Issues

Aside from not achieving or graduating from school at the same rate of girls, boys are much more likely than girls to be labeled as having a variety of school problems. Roughly two thirds of students served under the IDEA (Individuals with Disabilities Education Act) are boys (Zorigian & Job, 2013). Boys constitute a majority of both the students identified as having a learning disability and those identified with emotional disturbance. Special education programs and classes are overrepresented with boys (Zorigian & Job, 2013).

At the secondary level, boys comprise 73% of students with learning disabilities and 76% of students who are labeled emotionally disturbed (Mortenson, 2006). Boys are also much more likely than girls to be held back or to repeat a grade. In 2000, 34.3% of boys, compared to 25.8% of girls, were enrolled below their grade level for their age (Mortenson, 2006). More boys than girls have trouble learning to read, and more boys end up in special education classes. The special education numbers are astounding. This chart (Table 1) from Learn NC shows the statistics gathered by the Office of Special Education in North Carolina in 2003 (Zorigian & Job, 2003).

Table 1

Disability by Gender in North Carolina

	Age 6-12		Age 13-17	
	Male	Female	Male	Female
Disability	67%	33%	66%	34%
Emotional Disturbance	80%	20%	77%	23%
Speech Impairment	66%	34%	62%	38%
Intellectual and development delays	56%	44%	56%	44%
Visual Impairment	57%	43%	53%	47%
Hearing Impairment	56%	44%	52%	48%
Autism	83%	17%	85%	15%
Multiple Disabilities	65%	35%	57%	43%
Deaf/blindness	65%	35%	57%	43%
All disabilities	67%	33%	66%	34%

Schools need more male special education teachers to provide a balanced educational experience for their students. Boys are more likely to be diagnosed with Attention Deficit Hyperactive Disorder (ADHD)—three boys to every girl according to Marjorie Montague, Ph.D., professor of special education at the University of Miami. “No one knows if it is more common in boys or just more likely to be diagnosed in them. It may just be that boys are referred more commonly by teachers,” said Montague (2008, p. 38), whose research focuses on learning disabilities and emotional and behavioral disorders.

Motivation

Motivation has been studied extensively, but there is limited research on the role motivation plays in reading. According to Guthrie (2008), reading motivation refers to interest, dedication, and confidence. An interested student reads because he enjoys it, a

dedicated student reads because he believes it is important, and a confident student reads because he can do it. Usually, students who are gaining in skill are also gaining in motivation (Guthrie, 2008). Nevid (2013) referred to motivation as the reasons for behavior:

The term motivation refers to factors that activate, direct, and sustain goal-directed behavior . . . Motives are the “whys” of behavior—the needs or wants that drive behavior and explain what we do. We don’t actually observe a motive; rather, we infer that one exists based on the behavior we observe. (p. 488)

Motivation brings to mind the reward for success, but extrinsic rewards do not motivate reading achievement in the long run. Students who read for the reward are not the best readers. If you are reading only for the rewards, what happens when the reward is taken away? It encourages students to become more interested in the award than in the learning. If the motivation to read is not intrinsic, reading achievement will not increase (Otis, Grouzet, & Pelletier, 2005).

Because reading is an effortful activity that children can often choose to do or not to do, it also requires motivation (Bandura, 1986). Reading attitudes typically are defined as readers’ affect toward reading. The motivational consequences of reading attitudes are that children with more positives are more motivated to read. According to Bandura, many motivation theorists propose that individuals’ competence and efficacy beliefs, intrinsic and extrinsic motivation, and purposes for achievement play a crucial role in their decisions about which activities to do, how long to do them, and how much effort to put into them. When individuals believe they are successful at an activity, they are more likely to engage in it. The third dimension in this category is work avoidance or the

desire to avoid reading activities. When students lack a sense of efficacy, they likely wish to avoid the challenging reading activities (Bandura, 1986).

The attitude of a learner is fundamental to the outcome of their work (Lipson & Wixson, 1992). The way a child feels about reading is closely related to their level of success as a reader (Garrett, 2002). The motivational consequences of reading attitudes are that children with more positive attitudes are more motivated to read. Children do much of their reading in school where their reading performance is evaluated and compared to other' performance so grades, and competition may figure prominently in their motivation for reading (Baker & Wigfield, 1999).

Numerous studies have found that homophobic language is mainstream and is indirectly reinforced in the school culture. One study found that boys in elementary school hear the word gay used an average of 25 times per day. In the minds of boys, anything they perceive to be "gay" or "girly" should be avoided (Newkirk, 2002). If boys are required to participate in one of these activities, they will often put little effort into the activity. These activities may include reading and writing, especially those chosen by female teachers that contain feminine characters (Newkirk, 2002).

Stereotyping

Just the mention of the word boys brings to mind a host of stereotypes such as "boys will be boys." Boys do have different needs, they do learn differently, and they can benefit from different instructional strategies (Maccoby, 1988). Gender stereotypes such as these tend to steer children behaviors in the direction of what is expected of their gender, narrowing the range of interests and choices available to them and restricting the possibility of development in atypical areas (Maccoby, 1988). Many boys strive to be

independent and are reluctant to admit when they are confused or stuck and need help. The independent spirit is valuable and has a place as boys develop into men. At the same time, boys must learn that it is ok to ask for help and to work with others (Neu & Weinfield, 2007).

In a study published in the *Children's Development Journal*, children from a very young age think boys are academically inferior to girls, and they believe adults think so too (DiPrete & Buchmann, 2006). Even at these young ages, boys' performance on an academic task is affected by messages that suggest that girls will do better than they will. Performance suffers when they think others may see them through the lens of negative expectations for specific racial, class, and other social stereotypes such as those related to gender (DiPrete & Buchmann, 2006). Reading is sometimes perceived as a "feminine" activity. Boys may face ridicule for joining extracurricular activities and have a negative attitude toward art-related school activities. Even doing well can be looked at as feminine by their male peers. When boys reach adolescence, their gender identification becomes more important. If they believe reading is a feminine activity, they will abandon it in order to demonstrate their masculinity. The gender gap does not only exist in terms of grades, as studies show that girls are enrolling in college at a higher numbers these days, and boys are falling behind (DiPrete & Buchmann, 2006).

Bauchmann, professor of sociology at Ohio State University, stated, "the world has changed around boys, and they have not adapted as well as girls. Males often simply lack motivation, not intellect" (DiPrete & Buchmann, 2006, p. 22). At every level of cognitive ability, boys are getting lower grades than girls. It is not about ability; it is about effort and engagement. Success in academics, like success in sports, requires time

and effort. Because boys put forth less effort and are less engaged, they get lower grades and are less likely to get through college (DiPrete & Bauchmann, 2006).

In the Metropolitan Life Survey of the American Teachers, both boys and girls perceive teachers as favoring girls over boys. More boys than girls felt that teachers do not listen to what they have to say. The survey also revealed that boys demand more attention than girls, and girls ask for help outside of class more often (Draves, 2005).

Booth (2000) made this appeal to teachers:

Work against stereotype and move towards archetype. Value and accept boy's responses and find ways to stretch and deepen them. Help them to find their emotional selves inside the texts we share, in safe ways, together. Stand for all of the literacies in all the forms and shapes they take, mindful of print's own and particular value. Model what you want them to become—print-strong men who believe in equity. Question and wonder about all the texts you meet and include boys in the tentative process of meaning making. Let them know that there are different types of literate men and that we value all of them. (p. 101)

Single-Sex Schools

Until the late 19th century, education in the United States was single-sex education. In an Associated Press article, Leonard Sax (2007), Director of the National Association for Single Sex Public Education, explained that the number of gender-specific classrooms in 1998 was a mere four, but that by 2006, at least 223 public schools across the country already offer some single-sex classrooms. Because the changes in federal law allowing single-gender classes are recent, studies on the topic are limited (Sax, 2007).

Education gradually entered the American landscape in the late 1800s; and since that time, single-sex education has mostly been confined to private and religious schools (Sax, 2005). Coeducation was more economical because it was cheaper to operate one school with males and females than it was to have separate schools. Feminists of the day also valued coeducation as a necessary step in the women's rights movement. Single-sex education garnered new interest in the 1990s from researchers, advocacy groups, and policy makers (Sax, 2007). The opportunity to incorporate gender-specific classrooms into educational philosophy came in 2006 when the United States Department of Education changed regulations to allow single-gender classrooms in public schools and permitted more districts to offer options for parents and their children in terms of class composition. Teachers in all-boy classes found out they needed to put more attention on classroom management. They needed more tolerance for noise and disruption (Friend, 2007). In classroom discussions, teachers found it helpful to refer to sports, technology, and music. Some of Friend's (2007) suggested strategies for working with single-gender classes of boys included

- Classes with more coherent structure that is clearly explained.
- Vibrant and fast teacher-pupil interaction.
- High levels of teacher input.
- Constant enforcement of high expectations.
- Well-established baseline rules with known and enforced sanctions when the rules are broken.
- Short-term targets, public praise, the use of humor, informality, and topics that the students could relate to.

- An environment in which sexist comments and stereotypical behavior are challenged and not condoned.

Researchers in the United States have found that there is some positive impact from sending your child to a single-sex school. According to Mael (2010), Stephanie Monroe, who heads the Education Department's Office for Civil Rights, wrote, "Educational Research though it is ongoing and shows some mixed results does suggest that single-sex education can provide some benefits to some students, under certain circumstances" (p. 30). Single-sex schools seem more likely to encourage students to pursue academic paths according to their talents rather than their gender. Some studies stated that girls focus better without boys in the classroom. They do not have to worry about doing things that boys will make fun of, and they have more confidence to speak for themselves when boys are not present (Mael, 2010).

In a report by Younger and Warrington (2005), The National Association for Single Sex Public Education stated boys in all-boy schools are more than twice as likely to study subjects such as foreign language, art, music, and drama than boys in mixed-gender schools. Girls in all-girl schools are more likely to study subjects such as advanced math, computer science, and physics. Boys may be more concerned about what are acceptable male activities when there are girls present. Single-gender classes may provide an opportunity for boys to relax, focus on learning in ways that are more comfortable for them, and take more chances with things that are not comfortable for them. Younger and Warrington believed boys benefit from single-sex classrooms and that this climate celebrates who boys are while also allowing boys to expand their repertoire of skills and behaviors and to develop tolerance for individual differences.

Freed from concerns about the need to perform to role, boys and girls have repeatedly described the advantages of single-sex classes: a willingness to engage more in discussion and questioning, being prepared to discuss feelings, and a readiness to participate without fear of scorn or discomfort. Critics of single-sex schools note that separate is always “inherently unequal” (Younger & Warrington, 2005, p. 80). This phrase comes from the *Brown v. Board of Education* decision which ruled that separate but equal with regard to race was illegal.

Additional concerns deal with the limited opportunities for male and female students to work together and socialize and the potential for limited course offerings with honors and AP courses usually not being offered in single-sex schools (Younger & Warrington, 2005).

The Boy Code

Boys are treated different beginning at birth. Boys are taught that they are to be strong, silent, and self-reliant and should inhibit any feelings and desires that might be construed as feminine (Reichert & Kuriloff, 2004). Boys come to believe that violating the boy code will make them seem weak or girly in the eyes of others. Because of this, boys are often reluctant to ask for help they may need. The result of this male toughness when dealing with the stresses of the school environment may provide one of the explanations as to why boys are not achieving or demonstrating a positive attitude toward school. The combination of feeling stress and not being able to effectively deal with it leaves many boys feeling alienated and unconnected in the school environment. Among the many fears generated by the boy code is fear of being different, fear of being rejected by one’s peers, and fear of being viewed as weak or a sissy (Martin, 2002). The fear of

not belonging or being labeled is so strong that it can seriously compromise a boy's ability to function in school (Reichert & Kuriloff, 2004). Adherence to the boy code also makes boys less able to perform academically, especially in language arts activities that are becoming a larger part of the school day. Boys tend to be at a loss to discuss what a character in a story or book they read was feeling.

Implications for the Classrooms

While some of the underlying causes of the reading gap are galvanized by societal conditions, there are measures that we as individuals can take to help boys of any background develop reading skills that will encourage future learning and success. According to Guthrie (2008), there are five motivation practices that are well supported in research. These practices foster all of the motivations including dedication, interest, and confidence. These five practices are success, thematic unit, choice, relevance and collaboration, and relationship building. Success helps a student gain self-efficacy and confidence in their reading ability. A thematic unit across time has the benefit of nurturing student confidence in reading. A favorite motivator of many teachers is choice, because it allows students to choose the perfect book or to discover an author on their own. Practicing the art of relevance enables the student to connect the book to their lives. Social relationships are paramount for student development as readers (Gurian & Stevens, 2005).

On the whole, boys take longer to develop reading and writing skills, while mastery is expected at a much earlier age than ever before. Boys also tend to read less than girls, which may or may not be related to early struggles in this area. Less practice often translates into lower achievement (Karges-Bone, 1998).

Boys and girls develop differently, have differing preferences, and behave in dramatically different ways (Gurian & Stevens, 2005). Logically, this leads to the need for educators to offer methods and strategies for learning that appeal to each gender. The optimum classroom for boys includes making everything experiential. “Boys need many manipulatives, short verbal instructions, and activities that harness a boy’s high energy level” (Gurian, 2001, p. 105).

Boys who see the relationship between the text and their current lives are more likely to be engaged and to respond to the text (Smith & Wilhelm, 2002). Helping boys make connections by front-loading, prereading strategies, inquiry projects, and socializing activities can encourage boys to see connections between literature and life as well as support their reading comprehension and analysis skills (Martin, 2002).

Educators need to use strategies that help students understand the text through art and drama (Tyre, 2008). Drama activities give students opportunities to be physically active and to deflect their responses by taking on the persona of the character. Through these activities, boys may be more comfortable exploring characters and feelings. Administrators and teachers need to do a better job of making schools more boy-friendly, which may include all guy classrooms with male teachers delivering the lessons (Tyre, 2013). Schools need to create a competitive atmosphere and create an attitude boys can buy into, which says good grades are expected and extremely valued, which could make some boys look at doing well in school. It will take a combined effort from school administrators and parents alike to help boys perform higher academically (Neu & Weinfield, 2007).

Encouraging family members, especially males, to read aloud to boys or take

them on trips to the library would be a wonderful way to model reading in a positive manner. Families should also provide reading material that affirms each child's individual interest and identity (Gurian, 2001). It is important for parents or caregivers to be patient and positive as children begin to read and provide them with reading material other than traditional books. In order for boys to feel their own sense of masculinity and personality, avoid gender stereotyping. Not all boys will struggle with reading or be interested in the same reading material. Attending preschool can help boys with early reading implementation and basic school readiness (Stotsky, 2012).

As schools have become more and more focused on reading, a skill in which all students must demonstrate competence, and as the primary way to learn all concepts, boys have become less motivated and have experienced less success (Unrau & Schlackman, 2006). By providing strategies that encourage boys' interest in reading, as well as alternative ways for them to get information other than by reading, teachers increase the possibilities for boys to experience success in school and beyond. Teachers should keep in mind that magazines, websites, and comics are reading materials as well as books. Pupils who are not interested in school reading material never engage in reading at all and often develop an aversion to reading that may be lifelong. Despite the abundance of children's literature available, it is difficult to find reading material that would interest pupils who have already developed a dislike for reading (Scieszka, 2003). "Failure to raise the educational achievement of boys will mean that thousands of young men will face a bleak future in which a lack of qualifications and basic skills will mean unemployment and little hope of finding work" (Tyre, 2013, p. 33). Educators should strive to engage students in pleasurable reading across the curriculum, guiding students to

solve authentic problems through reading, conducting book talks, and promoting leisure reading at home.

Other relevant factors to student reading success have been succinctly summed up by Sanacore (2012):

- Determine students' attitudes toward reading.
- Give them experiences with different texts.
- Provide them with opportunities to select resources.
- Read aloud to them in school and help them to connect skills and strategies to interesting and meaningful contexts.

Summary

In Chapter 2, the researcher has sought to highlight major research studies that demonstrate the struggles boys are having in all organized countries. Research shows that boys are struggling academically in all organized countries. All boys are not having problems in reading, and all girls are not successful in reading.

“Failure to raise the educational achievement of boys will mean that thousands of young men will face a bleak future in which a lack of qualifications and basic skills will mean unemployment and little hope of finding work” (Tyre 2013, p. 33). A gender gap in reading has existed for decades and is the cause for legitimate concern among educators, families, and communities. The implications of a gender gap in literacy learning should not be ignored; neither should they be conflated with other curricular and instructional practices that have a negative impact on members of both genders (Newkirk, 2002). In Chapter 3, a clear description of the methodology of the study is provided wherein the three research questions identified in this study were answered.

Chapter 3: Methodology

Introduction

The purpose of this sequential mixed-methods study was to examine the effect motivation and reading attitudes of third-grade students have on their North Carolina end-of-grade reading scores. Specifically, the study analyzed student survey answers on motivation and compared the differences in girls' and boys' answers. Third-grade teachers completed a survey about male reading performance and motivation as well as took part in an interview with the researcher concerning their feelings about male students and how they impact classroom instruction. The researcher compared the boys' and girls' motivation and reading attitude based on the data collected from the 53-question MRQ completed by the third-grade students. A correlation study was also completed to see if there is a significant relationship between the motivation and reading attitude of males and their North Carolina end-of-grade reading test scores for 2013-2014 and 2014-2015. The study also addressed the perceptions and expectations third-grade teachers have of male students and if there is a correlation between teacher beliefs and male student test scores on the North Carolina end-of-grade reading test. The results of the study were investigated through the following research questions.

Research Questions

1. How do third-grade boys' motivation and attitude toward reading compare to third-grade girls' motivation and attitude toward reading in Schools A, B, and C?
2. How do the motivation and reading attitude of third-grade male students correlate with their reading achievement on the North Carolina end-of-grade

reading test in third grade and the next year in fourth grade?

3. What factors are perceived by teachers as influencing male reading achievement?

Research Design

This was a mixed-method empirical research study in which both quantitative and qualitative methods were used to collect more varied data and strengthen the validity of the final conclusions. The participants included third-grade students and teachers from three elementary schools in the foothills of rural North Carolina. For this study, the three schools are referred to as Schools A, B, and C. The third-grade students in the three elementary schools were given the MRQ (Appendix A) which consisted of 53 questions on reading motivation. Ten classroom teachers of third-grade students were asked to complete a survey (Appendix B). They also participated in an interview with the researcher to gather data on teacher perceptions and expectations of male students and factors they feel motivate students in reading.

Participants

The school system in which the study took place is located in a rural area of the foothills of the Blue Ridge Mountains of North Carolina. It is a small district which consists of seven schools including the three elementary schools used for this research study. This district has two high schools, one middle school, and one special needs school with a total of 3,188 students from preschool through high school. The school system consists of a low socioeconomic population that was impacted by the downturn in the economy in the recent years. Currently, 67% of the district's population qualifies for free or reduced lunch. The three elementary schools used for this study have a free or

reduced lunch population of School A, 60%; School B, 82%; and School C, 72%. This district has a strong strategic plan, vision, and mission statement in place. Each of the three elementary schools used in this study also has a vision and mission statement that aligns with the school district's mission and vision. The district ethnic composite of students consists of 50% White, 12% African American, 6% Asian, 25% Hispanic, and 7% other nationalities. The North Carolina end-of-grade scores for the district in reading in 2011-2012 were females 74.2% and males 70.5%. In 2012-2013, females scored 41.6% proficient, and males were 37.5% proficient. In 2013-2014, females scored 55.1%, and males scored 51.1%. In 2014-2015, females scored 36.3%, and males scored 33.8%. During the past 4 years in this district, the trend has been for girls to score higher on end-of-grade tests in reading than boys.

This study was a quasi experiment because the participants in this study are nonrandom. The researcher chose to use the entire third grade for this study. School A has 97 third-grade students; School B contains 77 third-grade students; and School C contains 38 third-grade students. The total number of third-grade students in the three schools surveyed was 212. The researcher distributed 212 surveys to the schools. Surveys could only be used if these students were in the third grade at that school in the 2013-2014 school year and if they had an end-of-grade reading score for 2013-2014. Any new students could not be surveyed, and any students who moved since they took the end-of-grade test did not participate. Of the surveys returned, 117 met all criteria and could be used for the data analysis.

Table 2

Participants of Research Study

Third-Grade Students	School A	School B	School C	Total
	97	77	38	212
Teachers	4	4	2	10

The Instrument

The MRQ (Appendix A) is the survey that was used for the first phase of the study. This survey was given to all third-grade students in Schools A, B, and C. The MRQ is a 53-question survey designed to assess different aspects of elementary children's motivations for reading. The questionnaire was obtained from the National Reading Research Center. The MRQ is a student-rated assessment of the extent to which each student is motivated to read. Students answered questions with answers 1-4 and points were scored 1-4 to arrive at a motivation score. The survey was originally developed by Dr. Allan Wigfield and Dr. John Guthrie at the University of Maryland in 1995. The survey was designed to assess different aspects of student motivation. In 1997, Wigfield and Guthrie improved the MRQ by grouping questions into 11 constructs of reading motivation with the help of motivational interviews with students, classroom reading instruction observations, and alignment with motivational theory (Guthrie et al., 1996). The original questionnaire contained 82 items (Wigfield & Guthrie, 1997) but was revised by Wigfield and Guthrie in 1997 and now only contains 53 items (Appendix A).

The constructs of the survey include reading efficacy, reading challenges, reading curiosity, reading involvement, the importance of reading, reading work avoidance,

competition in reading, recognition for reading, reading for grades, social reasons for reading, and compliance. The MRQ integrates research from both the general motivation literature and work on literacy motivation. Motivational researchers have proposed and investigated what they consider being the most important motivational constructs that mediate achievement behavior. The MRQ was selected because of the questionnaire's breadth and existing reliability and validity data. The questionnaire is designed for upper elementary and middle school; and if given to third- and fourth-grade children, it is recommended that the MRQ be read aloud. This study was conducted with third-grade students; therefore, the questionnaire was read aloud by the teacher to the participating students (Guthrie, 2008). The questionnaire consisted of 53 questions that students answered with a multiple choice of 1 to 4. The Likert scale response format is 1 equals very different from me, 2 equals a little different from me, 3 equals a little like me, and 4 equals a lot like me. The revised MRQ is intended to reflect 11 constructs of reading motivation. The constructs include reading motivation (three items), reading challenges (five items), reading curiosity (six items), reading involvement (six items), importance of reading (two items), reading work avoidance (four items), and competition in reading (Guthrie, 2008).

The second phase of the study involved 10 third-grade teachers in Schools A, B, and C. The researcher designed a survey on reading motivation using the online tool Web Survey Master. The survey consists of 12 questions (Appendix B) regarding the teacher's everyday interaction with boys in a classroom setting.

The questionnaire was completed by each teacher online. Using an online survey gave teachers the opportunity to complete the survey at their convenience within the time

constraints. The researcher also conducted an interview with each of the 10 teachers. Baumann and Bason (2004) supported the use of interviews within the context of survey research. An interview allows for a fluid conversation providing depth to the information gathered from a survey. Interviewing allows for the opportunity to understand feelings and thoughts that may not be observed (Boeije, 2002). The interviews were conducted in a private room with only the researcher and the teacher. The researcher took notes as well as recorded the interview sessions. The questions below were used to guide the interview sessions with each teacher.

1. Do you feel that boys in your class struggle more with reading/literacy activities than the girls? If so, what are some of the reasons you feel boys tend to struggle more than the girls?
2. When you plan your lessons, do you utilize differentiated activities and materials with the boys, or do you plan the same activities for both the boys and girls in your class?
3. What strategies do you utilize in the classroom to motivate and effectively engage the boys in literacy activities/reading?
4. Given boys and girls are different and that they have different learning styles, do you feel that segregating the boys and girls into single-sex classrooms for academics could prove to be an effective strategy to utilize with curbing the gaps and lack of motivation between genders in the classroom? If so, why do you feel this strategy could be effective? If not, what are some of the challenges you see with implementing the single-sex classroom strategy?
5. If given a choice to have a single-sex class, would you choose to teach the

boys or girls and why?

Validity

Wigfield and Guthrie (1997) reported the reliabilities for all the aspects of the 53-item MRQ from .43 to .81. Work avoidance and reading for grades had reliabilities of .44 and .43 respectively at the one-time point, but they had reliabilities of .60 and .59 at a different time point. The remaining nine aspects showed consistent reliabilities ranging from .52 and .81 (Guthrie, 2008).

Factor analysis indicated evidence of construct validity supporting 11 factors for the 53-item revised MRQ in fourth and fifth grade. Most of the reading motivation aspects correlated positively from low to moderately high levels, providing further evidence of construct validity. Only the Work Avoidance correlated negatively with all aspects aside from competition in reading (Guthrie, 2008).

The teacher survey questions were vetted by a group of teachers at a school for students ages 3 to 22 to test the clarity and applicability of the questions being asked in the survey. The researcher used certified teachers to validate the teacher survey and interview questions because only certified teachers were asked to complete the instruments. The certified teachers were asked to complete the 12-question survey and give feedback to the researcher on the clarity and relevance to the research questions. After discussion with teachers, the researcher made adjustments to reflect the suggestions. The researcher determined that the teacher survey was coherent and relevant to this research study. The teacher interview questions were also validated by another group of certified teachers in the same school. The teachers examined the questions and gave the researcher feedback and suggestions for changes in the questions.

The researcher determined that the interview questions were coherent and relevant to this study.

Procedures

The researcher was granted permission by the superintendent of the school district to conduct research at the three elementary schools in the district. The researcher called each elementary school principal to schedule a personal visit to explain the research project and ask permission to conduct the research in each school. During the visit with each principal, the researcher explained the protocol and procedures to be used during the research. The principal was also asked to sign a permission form to complete research in his/her school (Appendix C). A letter was sent home with each third-grade student in Schools A, B, and C on August 26 to parents explaining the procedures of the research and allowing them to give permission for their child to participate in the study (Appendix D). The survey was completely voluntarily, and only students with a completed permission form were allowed to take the reading motivation survey. The classroom teacher gave her students the survey between August 29 and October 1 depending on when students returned the permission forms to participate in the survey. Each third-grade teacher was also asked to sign a permission form stating they were willing to take part in the researcher's interview process to answer questions about student expectations, motivation, and attitudes toward reading. Each permission letter explained that participation in this study was voluntary.

The MRQ was administered to students by each of the 10 third-grade classroom teachers. The classroom teachers were asked to administer the questionnaire so students would feel more comfortable taking the survey with their regular teacher. For the MRQ,

children were told they were going to answer questions about their reading and that the questions had no right or wrong answers. They were given three practice items before beginning the actual questionnaire. The teacher read each question aloud to students and allowed them ample time to make a choice of the four answers before going on to the next question. The MRQ and reading questions took approximately 20 minutes for the children to complete. There are 53 questions, so teachers had the choice of doing the survey in separate sessions or giving the entire survey in one sitting. When surveys were completed, they were given to the school principal.

The researcher emailed each of the 10 third-grade teachers to schedule an individual interview. Schools A and C were able to schedule the interviews during the school day because they had planning time. School B interviews were scheduled after school because this was teacher preference. Having one-on-one interviews gave the researcher and teachers a chance to talk privately and the teachers a chance to give their individual opinions as well as to assure confidentiality. The researcher tried to visit each teacher during a time that minimized the loss of instructional time for students. The researcher visited each school site at the appointed times and conducted interviews individually with each teacher. The researcher began by explaining the research study and thanking the teacher for their participation. Each teacher was also asked to sign a permission form stating they gave permission for the researcher to conduct the interview (Appendix E). The researcher used the interview questions to guide the discussion. The researcher recorded the interviews with teachers as well as took anecdotal notes.

Data Collection and Analysis Procedures

When the researcher was notified by principals that surveys for all schools were

completed, the researcher picked up the surveys from Schools A, B, and C. There were 212 surveys distributed to the three schools. Surveys could not be used if the students were new to the school and did not have the previous 2 years' end-of-grade scores. There were also some students who moved to another school, so those surveys could not be completed. The 117 student surveys that were completed were compiled and entered into an Excel spreadsheet by the researcher and were sorted by student and teacher and tallied for a total MRQ score. A mean score was calculated for boys and girls, and they were compared to see if there was a difference in reading motivation for boys and girls. This score was compared to the end-of-grade scores for each teacher's class to see if reading motivation scores played a role in end-of-grade reading scores. The researcher transcribed recorded information from the teacher's face-to-face interviews and compiled the teacher's answers from the 12-question survey. This information gave the researcher a clear picture of the teacher's perspectives, expectations, and beliefs concerning boys in their classroom. Teacher answers from the survey were compared to the MRQ score and student end-of-grade reading scores to see if there was any correlation between the answers given by teachers concerning their perception of boys and the boys' end-of-grade reading scores. End-of-grade scores for the students surveyed were compared for school years 2013-2014 and 2014-2015 to analyze performance of boys compared to girls as well as boys' motivation scores compared to reading scores.

A chi square was conducted on the data in order to determine if there was a significant difference in schools or classrooms relative to gender. The normality of the distributions was investigated with skewness and kurtosis statistics using the statistical package for the social sciences software.

A correlation analysis was also used to look at the two variables of boys' reading motivation and attitude and their actual reading scores on the North Carolina end-of-grade tests. According to Paton (2012), a survey or questionnaire that solicits responses by asking fixed-choice or close-ended questions as well as open-ended questions is an example of how qualitative inquiry and quantitative measurement are combined in a single research study. Open-ended questions focusing on teacher perceptions of the past or present are good for descriptions (Glense, 1999).

Summary

In Chapter 3, the researcher described the participants in the study, instruments used, procedures, validity, research design, and data collection and analysis. The purpose of this sequential mixed-methods study was to examine the effect motivation and reading attitudes of third-grade students have on their North Carolina end-of-grade reading scores. Specifically, the study analyzed student survey answers on motivation and compared the differences in girls' and boys' answers. Third-grade teachers completed a survey about male reading performance and motivation as well as took part in an interview with the researcher concerning their feelings about male students and how they impact classroom instruction. The researcher compared the boys' and girls' motivation and reading attitude based on the data collected from the 53-question MRQ completed by the third-grade students. Chapter 4 describes the findings of the study which are organized by the research questions as well as quantitative and qualitative data.

Chapter 4: Results

Introduction

The purpose of this sequential mixed-methods study was to determine if there were significant gender differences relative to motivation for reading among third-grade students in a small school district in North Carolina. Another purpose of the study was to determine if there was a significant relationship between motivation for reading and end-of-grade reading scores for 2013-2014 and 2014-2015. The qualitative strand of the study addressed the perceptions and expectations third-grade teachers have of male students and sought to determine if there was congruence between teacher beliefs and male students' test scores on the North Carolina end-of-grade reading test.

Participants in the study consisted of students who attended one of three elementary schools: School A, School B, and School C. Ten classroom teachers of third-grade students also participated in the study. The teachers completed a questionnaire developed by the researcher and were interviewed in order to provide data on teacher perceptions and expectations of male and female students and factors they believed motivated students in reading.

Instruments for the study included the MRQ. This survey was given to all third-grade students in Schools A, B, and C. The MRQ is a 53-question survey designed to assess different aspects of elementary children's motivations for reading. The researcher designed a survey on reading motivation using the online tool Web Survey Master, which was utilized in the second phase of the study and administered to the 10 third-grade teachers in Schools A, B, and C. The survey consisted of 12 questions (Appendix B) regarding the teachers' everyday interaction with boys in a classroom setting.

Chapter 4 is organized by the quantitative and qualitative results. The quantitative results include a discussion of the sample demographics, reliability analysis, descriptive statistics and data screening, and answering Research Questions 1 and 2. The qualitative results include a teacher survey and an interview with the researcher to answer Research Question 3. Quantitative data were analyzed in SPSS 23 for Windows. Data were entered in tables in Microsoft Word and subsequently copied and pasted into SPSS for analysis. The following provides a discussion of the quantitative results.

Quantitative Results

Sample Demographics

The sample consisted of 117 students. Males (49.6%, $n=58$) and females (50.4%, $n=59$) were approximately equally distributed. School A (49.8%, $n=58$) had about as many students as Schools B (24.8%, $n=29$) and C (25.6%, $n=30$) combined. Table 3 summarizes the demographic data.

Table 3

Demographic Data

School	<i>n</i>	%
School A	58	49.6
School B	29	24.8
School C	30	25.6
Total	117	100
Gender	<i>n</i>	%
Male	58	49.6
Female	59	50.4
Total	117	100

A chi square was conducted on the data in order to determine if there was a significance difference in schools relative to gender. There was no significant difference, $X^2(2, N=117)=.37, p=.831$. Therefore, males and females were equally distributed among the schools. A contingency table is presented in Table 4.

Table 4

Contingency Table of Gender by School

		School			Total	
		School A	School B	School C		
Gender	Male	Count	30	13	15	58
		% within Gender	51.7%	22.4%	25.9%	100.0%
		% of Total	25.6%	11.1%	12.8%	49.6%
	Female	Count	28	16	15	59
		% within Gender	47.5%	27.1%	25.4%	100.0%
		% of Total	23.9%	13.7%	12.8%	50.4%
Total		Count	58	29	30	117
		% within Gender	49.6%	24.8%	25.6%	100.0%
		% of Total	49.6%	24.8%	25.6%	100.0%

Fifty-two percent ($n=30$) of the males attended School A compared to 47.5% ($n=28$) of females. Twenty-two percent ($n=13$) of males attended School B compared to 27.1% ($n=16$) of females. Twenty-six percent ($n=15$) of males attended School C compared to 25.4% ($n=15$) of females. See Figure 2.

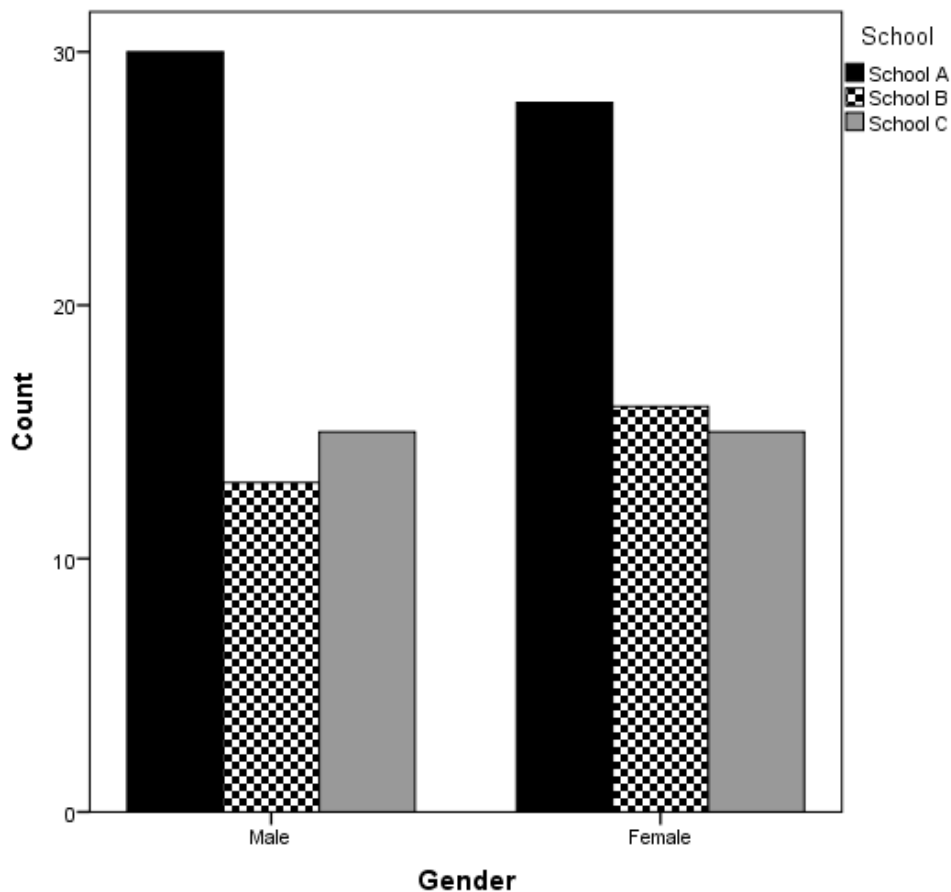


Figure 2. Clustered Bar Graph of Gender by School.

Reliability Analysis

The reliability of the MRQ for the sample of students was tested with Cronbach's alpha. The internal consistency for all 53 items was $\alpha=.903$. The minimum acceptable reliability is .70.

Descriptive Statistics and Data Screening

On the MRQ, scores ranged from 73 to 212 ($M=154.79$, $SD=22.96$). For the end-of-year grade (2013-2014), scores ranged from 2 to 99 ($M=56.64$, $SD=28.02$). For the end-of-year grade (2014-2015), scores ranged from 2 to 132 ($M=58.92$, $SD=28.69$).

Descriptive statistics are presented in Table 5.

Table 5

Descriptive Statistics

Variable	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>M</i>	<i>SD</i>
Motivation for Reading	117	73	212	154.79	22.96
End-of-Year Reading Grade (2013-2014)	117	2	99	56.64	28.02
End-of-Year Reading Grade (2014-2015)	112	2	132	58.92	28.69

The distributions are considered normal when the absolute values of the skewness and kurtosis coefficients are less than two times the standard error. Motivation for reading was outside the range of normality with a significant, negative skew as indicated in Table 6.

Table 6

Skewness and Kurtosis Coefficients

Variable	<i>N</i> Statistic	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Motivation for Reading	117	-.512	.224	1.05	.444
End-of-Year Reading Grade (2013-2014)	117	-.182	.224	-1.10	.444
End-of-Year Reading Grade (2014-2015)	112	-.160	.228	-.884	.453

The histogram for motivation for reading suggested that there was one statistical outlier. See Figure 3.

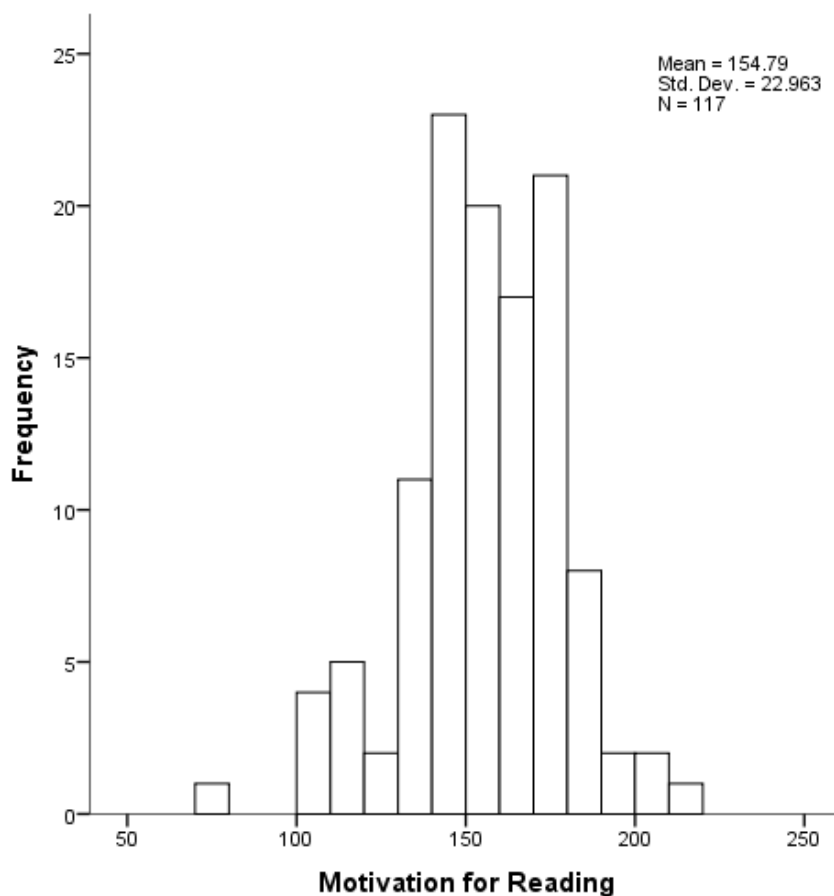


Figure 3. Histogram for Motivation for Reading.

A box and whisker plot was generated on the scores for the reading motivation survey to verify the score was a statistical outlier. Figure 4 confirmed that the value of 73 (case #63) was a statistical outlier and was, therefore, excluded from the subsequent analyses.

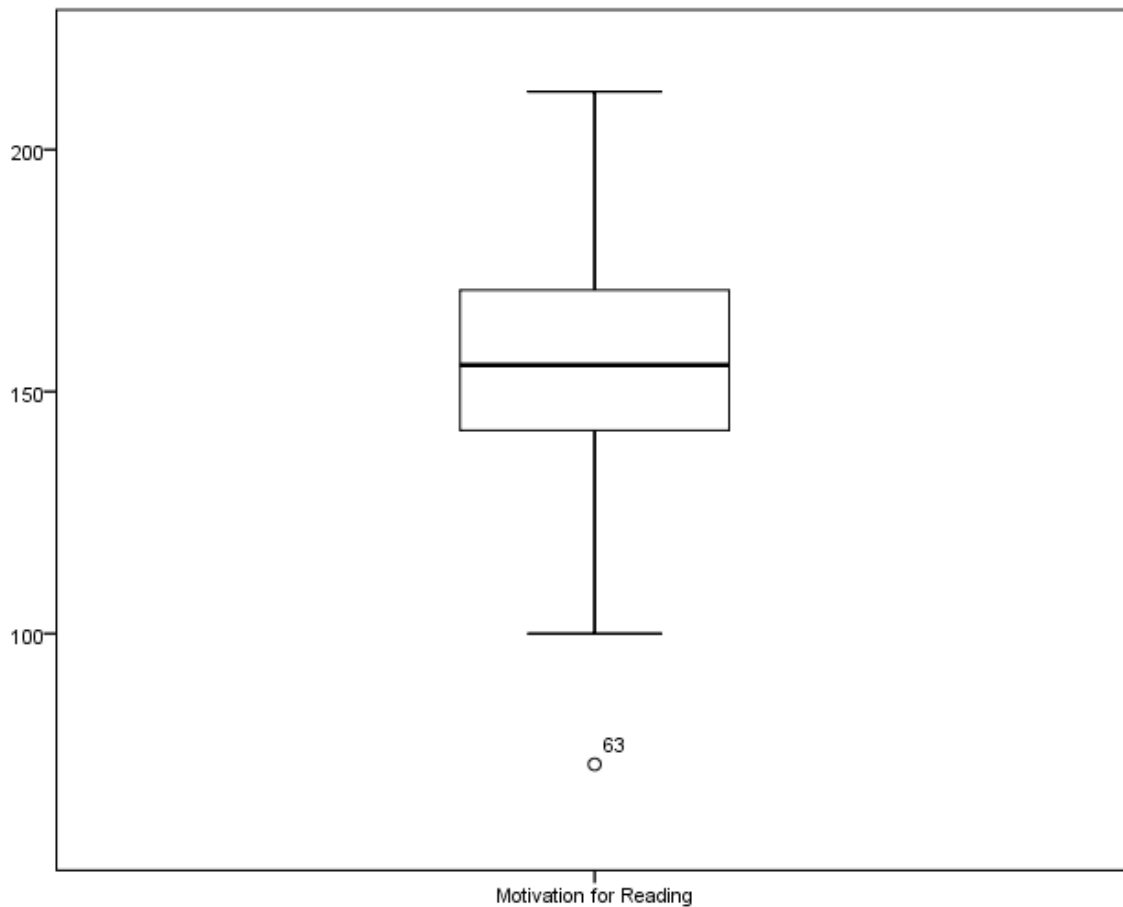


Figure 4. Box and Whisker Plot Showing One Statistical Outlier.

The skewness for the end-of-year reading grade for the 2013-2014 school year was within normal limits; however, the kurtosis was flatter than normal, platykurtic. See Figure 5.

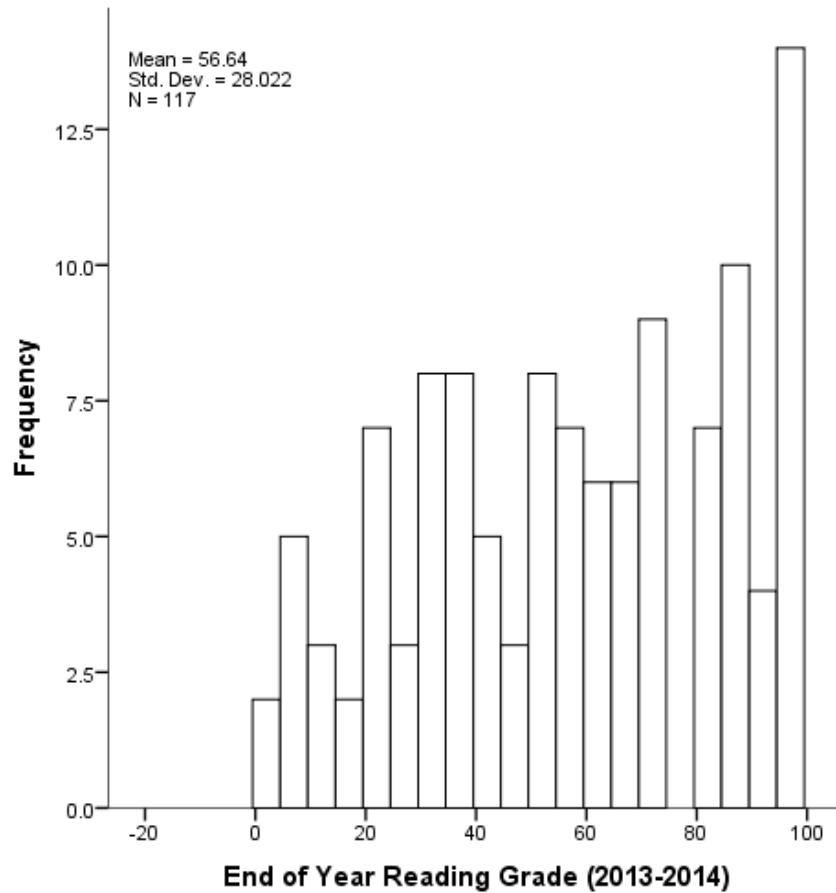


Figure 5. Box and Whisker Plot Showing One Statistical Outlier.

A box and whisker plot were generated on the scores for the end-of-year reading grade for the 2013-2014 school year to test for statistical outliers. There were no statistical outliers as indicated in Figure 6.

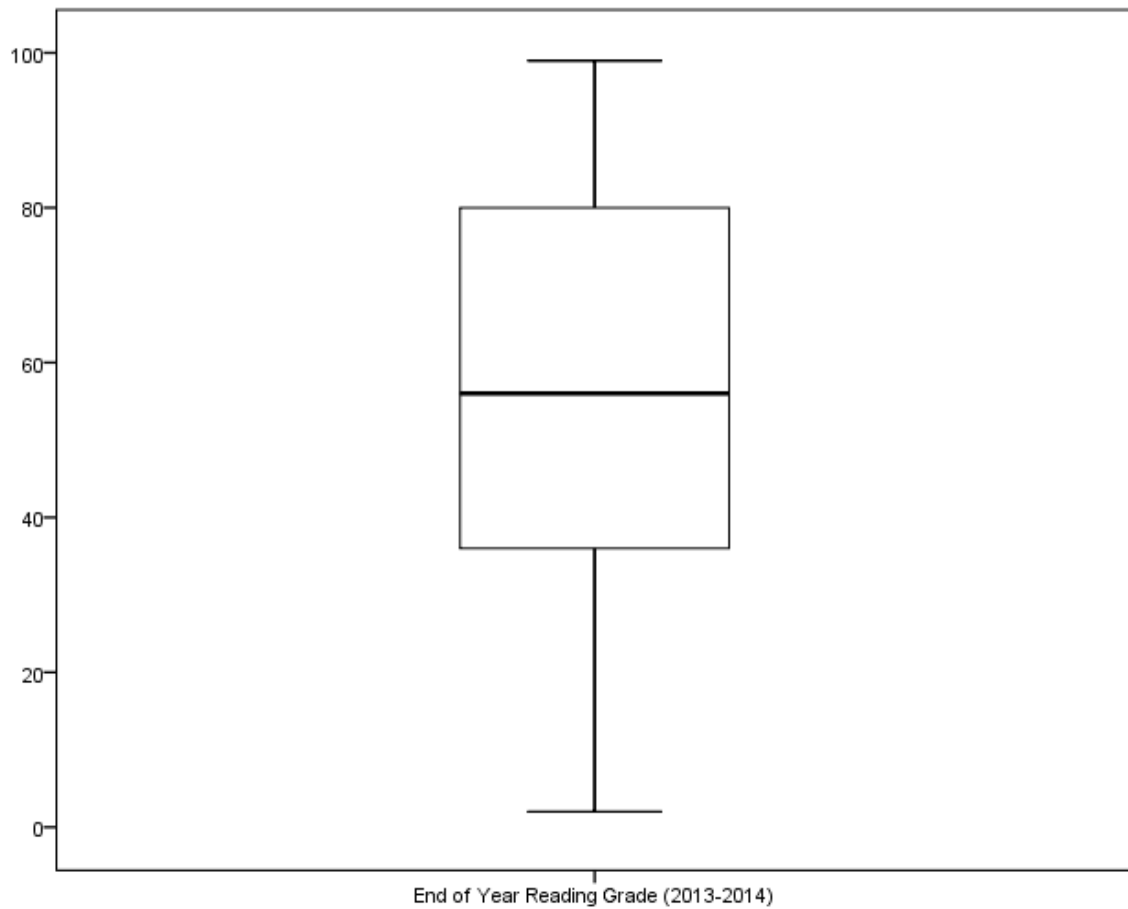


Figure 6. Box and Whisker Plot Showing No Statistical Outliers.

The skewness and kurtosis for the end-of-year reading grade for the 2014-2015 school year was within normal limits. A histogram for the data is presented in Figure 7.

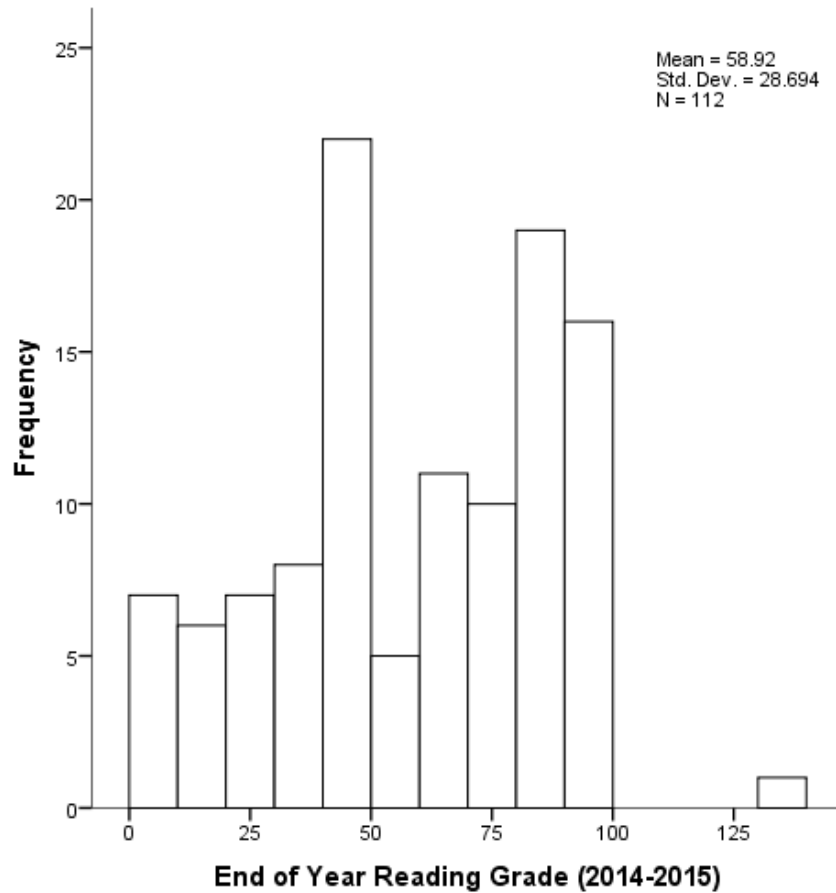


Figure 7. Histogram for End-of-Year Reading Grade (2014-2015).

One score appeared to be a statistical outlier; however, examination of the data with a box and whisker plot revealed that there were no statistical outliers for the variable. See Figure 8.

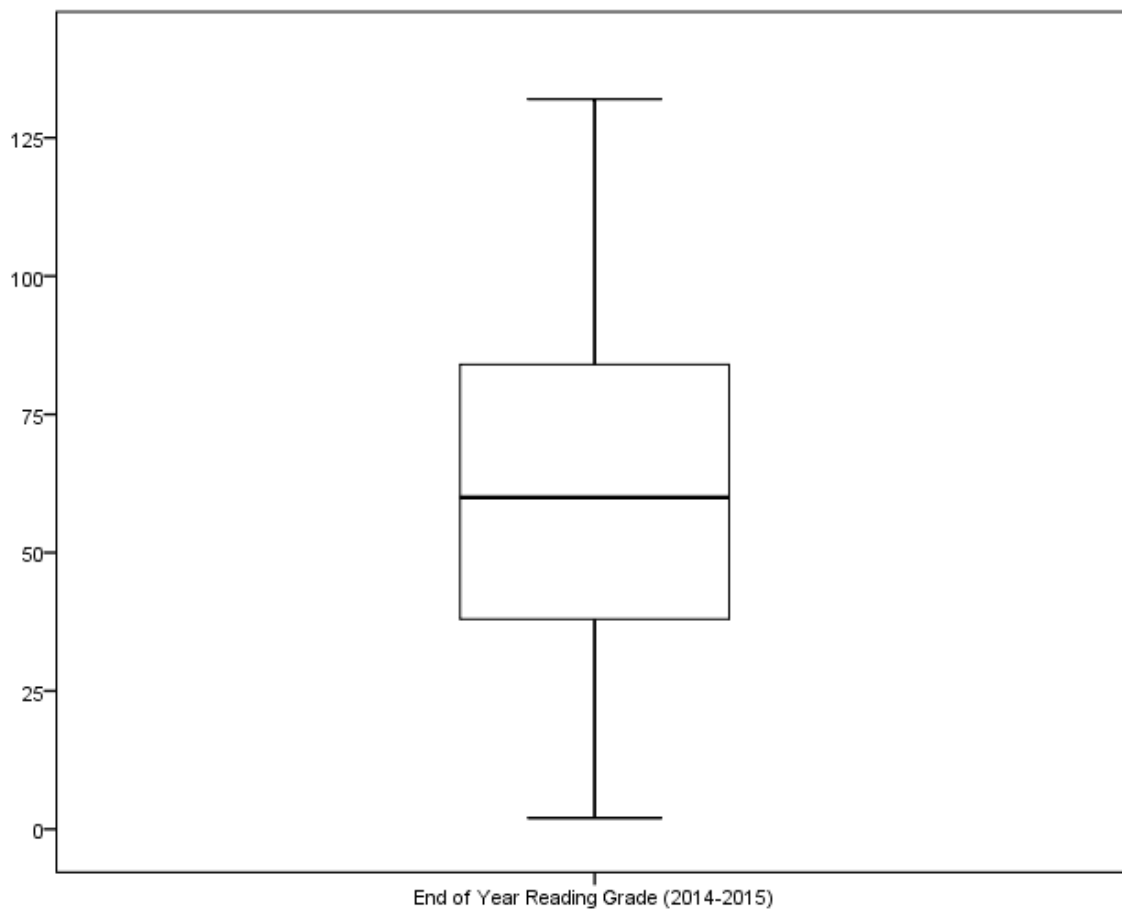


Figure 8. Box and Whisker Plot Showing No Statistical Outliers.

Research Questions

Three research questions were formulated for investigation. The first two research questions were quantitative and the third research question was qualitative. The research questions were as follows.

1. How do third-grade boys' motivation and attitude toward reading compare to third-grade girls' motivation and attitude toward reading in Schools A, B, and C?
2. How do the motivation and reading attitude of third-grade male students correlate with their reading achievement on the North Carolina end-of-grade

reading test in third grade and the next year in fourth grade?

3. What factors are perceived by teachers as influencing male reading achievement?

Research Question 1

How do third-grade boys' motivation and attitude toward reading compare to third-grade girls' motivation and attitude toward reading in Schools A, B, and C? The researcher used a 2-way ANOVA to investigate Research Question 1. The independent variables were gender with two levels and schools with three levels. The dependent variable was reading motivation. Before the analyses, the researcher tested for homogeneity of variances using the Levene's Test for Equality of Variances. Results indicated that the assumption of equality of variances had not been violated, $F(5, 110)=1.11, p=.361$. Group means for gender by school and reading motivation are presented in Table 7.

Table 7

Group Means for Gender by School and Reading Motivation

Gender	School	<i>M</i>	<i>SD</i>	<i>N</i>
Male	School A	156.67	18.15	30
	School B	153.00	24.67	13
	School C	155.47	24.33	15
	Total	155.53	21.05	58
Female	School A	163.44	22.03	27
	School B	158.56	14.89	16
	School C	137.80	21.80	15
	Total	155.47	22.62	58
Total	School A	159.88	20.19	57
	School B	156.07	19.68	29
	School C	146.63	24.41	30
	Total	155.50	21.75	11

In a 2-way ANOVA, three hypotheses are tested: two main effects and an interaction. The ANOVA Summary Table is presented in Table 8.

Table 8

ANOVA Summary Table

Source	<i>df</i>	<i>F</i>	<i>p</i>
Gender	1	0.19	.663
School	2	4.08	.020*
Gender * School	2	3.70	.028*
Error	110	(434.03)	
Total	115		

Note. Value in parentheses represents mean square error. * $p < .05$.

There was no main effect for gender, $F(1, 110)=0.19, p=.663$; therefore, the null hypothesis was not rejected. There was a main effect for school, $F(2, 110)=4.08, p=.02$; therefore, the null hypothesis was rejected. Scheffe post hoc comparisons were conducted on the data in order to determine where there was a significant difference. Based on the data in Table 7, students who attended School C had significantly lower (*mean difference*=13.24) reading motivation than students who attended School A, $p=.022$.

Table 9

Scheffe Post Hoc Comparisons

(I) School	(J) School	Mean Difference (I-J)	Std. Error	<i>p</i>	95% Confidence Interval	
					Lower Bound	Upper Bound
School A	School B	3.81	4.752	.726	-7.98	15.60
	School C	13.24*	4.699	.022*	1.58	24.90
School B	School A	-3.81	4.752	.726	-15.60	7.98
	School C	9.44	5.425	.225	-4.03	22.90
School C	School A	-13.24*	4.699	.022*	-24.90	-1.58
	School B	-9.44	5.425	.225	-22.90	4.03

Note. The error term is Mean Square (Error)=434.03. * $p < .05$.

While students who attended School B had lower reading motivation than students who attended School A, it was not significantly lower, $p = .726$. Students who attended School C had lower reading motivation than students who attended School B, but it was not significantly lower, $p = .225$. See Figure 9.

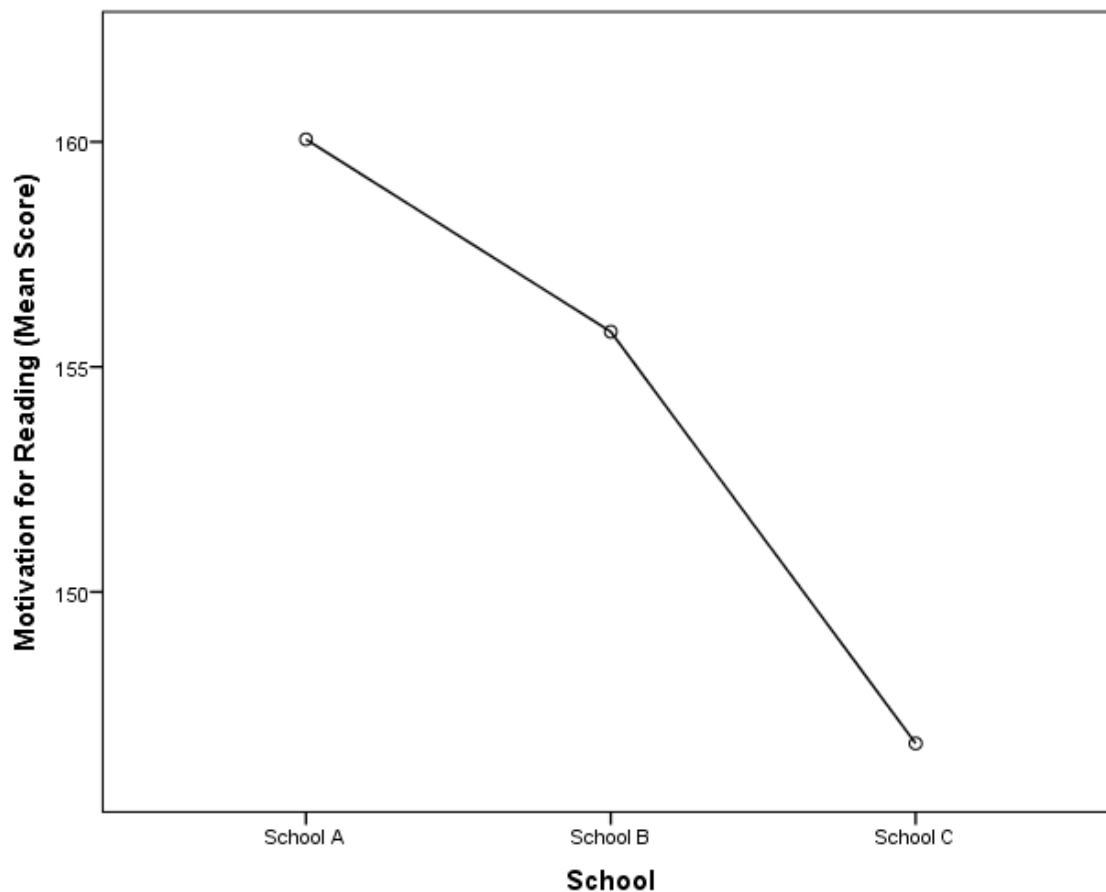


Figure 9. Reading Motivation by School.

There was a significant interaction between gender and school, $F(2, 110)=3.70$, $p=.028$; therefore, the null hypothesis was rejected. It was previously determined that there was no main effect for gender. This means that overall, reading motivation did not significantly differ across schools; however, a significant interaction means that reading motivation by gender depended on the school the students attended. Further analyses were conducted to gain more insight, which consisted of three independent samples t tests, one for each school.

School A

Although reading motivation was higher for females ($M=163.44$, $SD=22.03$) in

School A than for males ($M=156.67$, $SD=18.15$), it was not significantly higher, $t(55)=-1.27$, $p=.209$, two-tailed. The mean difference was 6.78.

School B

Although reading motivation was higher for females ($M=158.56$, $SD=14.89$) in School B than for males ($M=153$, $SD=24.67$), it was not significantly higher, $t(27)=-0.75$, $p=.459$, two-tailed. The mean difference was 5.56.

School C

In School C, however, this trend was reversed. Reading motivation was higher for males ($M=155.47$, $SD=24.33$) in School C than for females ($M=137.80$, $SD=21.80$). There was a mean difference of 17.67. It was statistically significant, $t(28)=2.10$, $p=.045$, two-tailed. This is illustrated in Figure 10.

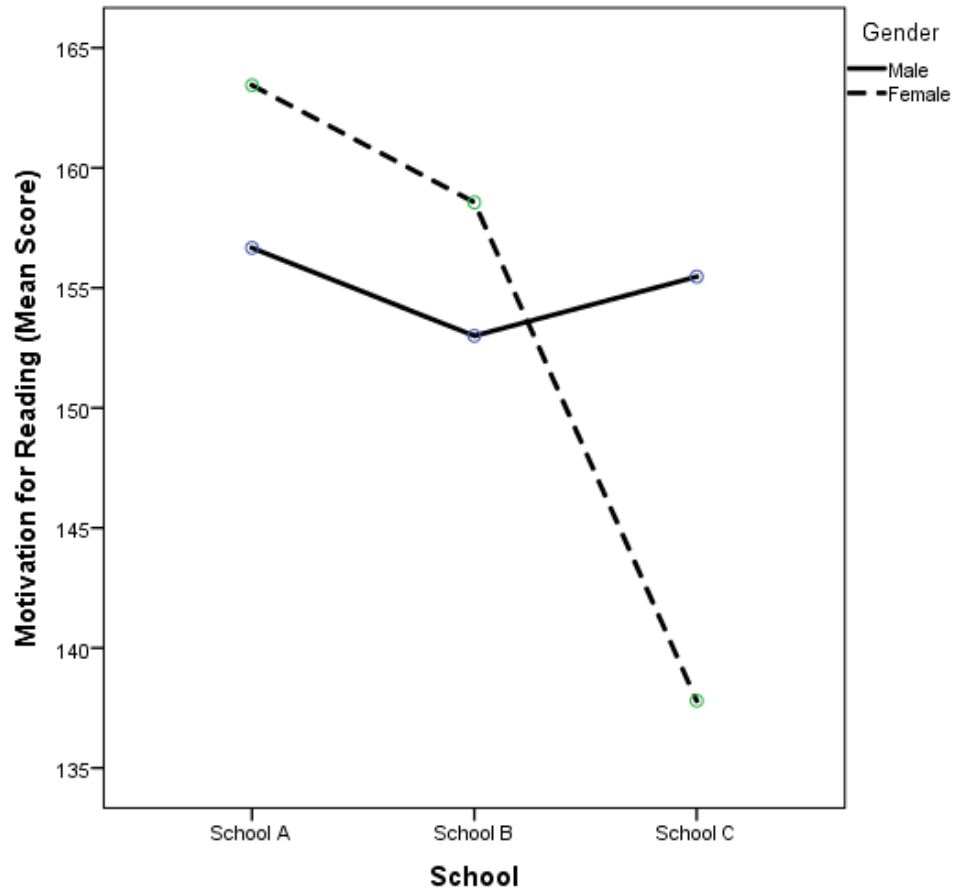


Figure 10. Reading Motivation by Gender and School.

Research Question 2

How do the motivation and reading attitude of third-grade male students correlate with their reading achievement on the North Carolina end-of-grade reading test in third grade and the next year in fourth grade? Research Question 2 was tested with the Pearson Product Moment Correlation (Pearson r). A correlation matrix is presented in Table 10.

Table 10

Correlation Matrix

Variable	1	2	3
Motivations for Reading (1)	----	.008	-.068
End-of-Year Grade (2013-2014) (2)		-----	.842***
End-of-Year Grade (2014-2015) (3)			-----

Note. N=58 for (1,2); N=53 for (1,3), two-tailed; *** $p < .01$.

There was no significant relationship between motivation of the third-grade male students and their reading achievement on the North Carolina end-of-grade reading test for the 2013-2014 school year, $r(56) = .008$, $p = .954$, two-tailed; therefore, the null hypothesis was not rejected. There was no significant relationship between motivation of the third-grade male students and their reading achievement on the North Carolina end-of-grade reading test for the 2014-2015 school year, $r(51) = -.07$, $p = .63$, two-tailed; therefore, the null hypothesis was not rejected.

Qualitative Results

Research Question 3

What factors are perceived by teachers as influencing male reading achievement? Research Question 3 was investigated with a 12-question survey on male motivation for teachers as well as a personal interview with each teacher. Ten third-grade teachers completed a survey and took part in a face-to-face interview with the researcher. All 10 teachers were female. The researcher took notes during the interviews as well as recorded the conversations with the teachers. Data are organized by school, teacher, and the 12 survey questions (Table 12) and interview responses of teachers.

Findings for School A, Teacher 1

This teacher has been teaching for 8 years. She stated that boys in her classroom struggle with reading more than the girls, but she does not feel it is because the boys are not motivated to read. She regularly selects reading material that she feels will be of interest to the boys in her class. This teacher feels that boys' behavior does impact their reading performance in the classroom. A lack of male role models is a huge factor for this teacher's students. Some of her students live with a single mother or with a grandmother, and there is no male role model in the home. This teacher felt this was also a factor in how much boys read outside of school. Sometimes they do not have an adult in the home who encourages reading or reads to them on a regular basis. Boys in her class are performing lower (44% proficient) than the girls (61% proficient) on end-of-grade reading tests in 2013-2014; and in the same cohort of students, boys scored 50% and girls 61% in 2014-2015 on the fourth grade end-of-grade reading test.

Findings for School A, Teacher 2

This third-grade teacher has been teaching 4 years. She also stated that boys in her classroom are struggling with reading more than the girls. She does not specifically choose reading material for boys but tries to choose books that will appeal to both boys and girls. It is a struggle to get parents to read with their children at home. She does feel that boys' behavior has a negative impact on their academic success. She feels that boys put forth enough effort in class and reading but also stated she does not feel they are motivated to read. This teacher reads aloud to her class at least 3 days per week. She does not feel that praise from her helps boys in her class to perform higher in reading and does not feel they are motivated to learn. Lack of male role models and slower brain

development are the factors she feels play the biggest role in the reading success of boys. When discussing the single-sex classroom, this teacher thought it might be a good idea and would prefer to work with the boys' classroom because girls are so dramatic. Boys in her class outperformed the girls on the end-of-grade reading test in 2013-2014 with girls at 46% and boys at 58%. In 2015, with the same cohort of students, the boys scored slightly less at 57% and girls scored 60% on the fourth grade end-of-grade reading test.

Findings for School A, Teacher 3

This teacher has been teaching for 5 years. She does not feel that the boys in her class struggle in reading more than the girls. She does feel that boys' negative behavior has an adverse effect on their reading performance. She consciously chooses reading material that she feels will interest boys such as sports and science books. She reads aloud to her class at least three times per week. She feels that a lack of reading material at home is a big factor in male reading achievement. She stated that boys in her classroom do read outside of class every day. Parents of boys in her classroom read with their child at home three times a week. Boys in her class are motivated to read and have a good attitude toward reading. Praise from the teacher encourages boys to read more. This teacher feels the combination of boys and girls in her classroom works well and does not see the need for a single-sex classroom. This teacher's end-of-grade reading scores for 2013-2014 were boys at 45% and girls at 52%. In the same cohort of students, boys scored 50% and girls scored 56% in 2014-2015 on the fourth grade end-of-grade test.

Findings for School A, Teacher 4

This teacher has been teaching for 7 years. She also stated that parents in her

class read to the boys three times a week at home. She does not feel that boys in her classroom struggle more than girls in reading. According to the teacher, behavior seldom impacts the reading performance of boys in her classroom. She reads aloud to her class at least three times per week and usually on a daily basis. Boys in her classroom are motivated, have a good attitude toward reading, and put forth enough effort on assignments. This teacher does not select reading material specifically for boys in her classroom but tries to use material that will appeal to both genders. This teacher does think that boys in her classroom are encouraged when they make a good grade in reading or receive praise about their reading from the teacher. She also stated that with more boys being raised by single mothers in her classroom, they do not have enough male role models, and this is the biggest factor in their reading achievement. This teacher felt that a single-sex classroom could be a positive thing because boys might work harder if they did not have the distraction of girls in the class. In 2013-2014, boys in her classroom scored 67%, and girls scored three percentage points lower at 64%. In the same cohort of students, boys scored 64% and girls scored 64% on the fourth grade end-of-grade test in 2014-2015.

Findings for School B, Teacher 1

This teacher has been teaching for 18 years. In her experience, boys usually struggle more in reading than girls. She stated that boys' behavior does have a negative impact on their reading achievement. When selecting reading materials for the classroom, she chooses books she feels boys and girls will both like. She stated that slower brain development in boys and boys being more active are the biggest factors in male reading achievement. Support at home is also a factor in lower reading students in

her classroom. This teacher also stated that she gives students time to read self-selected books and also uses technology to motivate boys to read. She has 15 iPads in her classroom with reading apps giving students the opportunity to choose their favorites. Another big issue discussed regarding male achievement was the fact that parents rarely read to the boys in her classroom at home. She sends home reading logs, but her boys with lower reading abilities rarely return them with a parent signature. In the past few years, she feels that boys in her class have been better at math and boys and girls were at the same level in reading. When asked about single-sex classrooms, this teacher felt it would not be the answer to separate by gender because the all-boy classroom would have more behavioral issues. Boys in her class scored 18% less than girls in 2013-2014 on the third grade end-of-grade test with boys scoring 51% and girls scoring 69%. In the same cohort of students, boys scored 42% and girls scored 67% on the fourth grade end-of-grade test in 2014-2015.

Findings for School B, Teacher 2

This teacher has been teaching for 14 years. She does not feel that boys struggle with reading more than girls in her classroom on a regular basis but does feel this is the case with this year's students. She stated that her African-American boys struggle more in reading than other boys, and they also do not have parents who read to them at home. This teacher felt that boys in her classroom do not put forth enough effort in reading. She does select reading materials that she feels will be interesting for boys but also feels that boys need to learn to read things they do not like. To effectively engage boys in reading, she introduces new books with content boys would find interesting. When asked if she thought single-sex classrooms would be beneficial, she said a class of all females would

be less distracting because of male behavior. Girls have more drama and can be sassy; therefore, she would prefer to have the boys' class if given a choice. She also stated that support from home was a huge factor in male reading achievement. Her reading scores for 2013-2014 on the third grade end-of-grade test were boys 67% and girls 65%. In the same cohort of students, boys scored 64% and girls scored 64% on the fourth grade end-of-grade reading test in 2014-2015.

Findings for School C, Teacher 1

This teacher has been teaching for 13 years and read aloud to her class every day. She does feel that boys in her classroom struggle more academically than girls. Boys' classroom behavior has a big impact on reading performance. Boys in her classroom do not put forth enough effort in reading and do not have motivation or a good attitude toward reading. This teacher also felt that classroom behavior of boys had a negative impact on their reading success. She feels that the lack of male role models is a big factor in male reading achievement. She does not feel that good grades in reading motivates her male students to perform better in reading. The teacher did not feel that a single-sex classroom would be more beneficial for boys or improve their reading scores. The reason she did not feel it would be effective is because a classroom composed of all male students would result in more negative behaviors. Reading scores in 2013-2014 for boys were 62% and 37% for girls. In the same cohort of students, boys scored 56% and girls scored 45% on the fourth grade end-of-grade test in 2014-2015.

Findings for School C, Teacher 2

This teacher has been teaching 8 years. Boys in her classroom struggle more than girls in reading. Behavior of boys has a big impact on reading achievement according to

this teacher. She does not select reading materials based on the interest of boys in her classroom but does read to her class at least 3 days per week. She does feel boys in her classroom are motivated and have a good attitude toward reading. Access to reading materials is a large factor in male reading achievement. This is one of the reasons parents do not read to them more at home. She does send home books on a regular basis for students to read at home. The lack of male role models plays the biggest role in male reading achievement. A few of the boys in her classroom are motivated and encouraged by praise but not all of them. This third-grade teacher liked the idea of have a single-sex classroom, because boys would not be disturbing the girls when they are trying to work and boys could not try to show off in front of girls. In 2013-2014, the boys in her classroom scored 30% on the third grade end-of-grade test and girls scored 53%. In the same cohort of students, boys scored 42% and girls scored 47% on the fourth grade end-of-grade reading test in 2014-2015.

Findings for School C, Teacher 3

This teacher has been teaching for 13 years. Boys in her classroom struggle more with reading than girls. Boys in her classroom are reading outside of school 1 day a week or less. Behavior is a major cause of low male reading achievement in her classroom. “It definitely has a negative impact on reading scores.” This teacher reads to her classroom at least 3 days a week. This teacher stated that parents of her boys do not read to them at home, and the boys also need to see their parents reading at home. She feels that males in her class do not have a positive attitude or motivation toward reading. Even though they are not motivated, this teacher feels that praise from her and good grades influence the boys to try harder and do better. Boys in her class do not put forth enough effort in

reading. “We have to push student so hard in third grade because of standardized testing. A lot of our testing passages are geared more toward girls and boys lose interest in reading.” She felt a single-sex classroom might help boys to focus more and concentrate more on learning if girls were not in the class. This teacher feels that stereotyping males is one of the biggest factors in male reading achievement. Her reading scores on the third grade end-of-grade in 2013-2014 for boys were 35% and girls scored 44%. In the same cohort of students, boys scored 35% and girls scored 30% on the fourth grade end-of-grade reading test in 2014-2015.

Findings for School C, Teacher 4

This teacher has been teaching for 4 years. She reads aloud to her class almost every day. She does not feel that boys in her classroom struggle with reading more than girls. She states that boys in her class read three times a week outside of the classroom. Behavior demonstrated by male students often gets in the way of their reading performance. She does consider the interest of the boys in her class when choosing reading materials for her classroom. Praise from the teacher and good grades does influence her boys to try harder and make better reading grades. She feels that most of the time, boys in her classroom put forth enough effort and are motivated to read. This teacher feels that one of the biggest factors in male reading achievement is the lack of reading material at home. She says parents of the boys in her classroom rarely read to them at home. Third grade end-of-grade reading scores in 2013-2014 for boys were 30% and girls were at 49%. In the same cohort of students, boys scored 43% and girls scored 46% on the fourth grade end-of-grade reading test in 2014-2015 as shown in Table 11.

Table 11

Third Grade Teacher Percentages on End-of-Grade Reading

Classroom	2013-2014 Male	2013-2014 Female	2014-2015 Male	2014-2015 Female
School A Teacher 1	44%	61%	50%	61%
School A Teacher 2	58%	46%	57%	60%
School A Teacher 3	45%	52%	50%	56%
School A Teacher 4	62%	67%	60%	60%
School B Teacher 1	51%	69%	42%	67%
School B Teacher 2	67%	65%	64%	64%
School C Teacher 1	62%	37%	56%	45%
School C Teacher 2	30%	53%	42%	47%
School C Teacher 3	35%	44%	35%	30%
School C Teacher 4	30%	49%	43%	46%

Table 12 is a compilation of the answers from all 10 third-grade teachers from three elementary schools on the 12-question survey. Fifty percent of the teachers answered that the boys in their class seldom put forth enough effort in reading most of the time, and 50% felt that boys in their class seldom put forth enough effort. Ninety percent of the teachers answered that they read aloud to their class every day. Forty percent of the teachers felt that the lack of male role models was the biggest fact in male reading achievement, and 30% percent felt that stereotyping males was the biggest issue.

Table 12

Teacher Reading Motivation Survey

Questions	0-5 yr.	6-10 yr.	11-15 yr.	15 or more yr.
1. How many years have you been teaching?	30%	30%	30%	10%
	Every day	Three Times Per Week	Once a Week	Less Than Once a Week
2. How often do you think the average third-grade boy reads outside of school?	10%	70%	10%	10%
	Always	Most of the Time	Seldom	Never
3. Do you think boys in your classroom struggle more with reading than girls?	10%	40%	50%	0%
4. Do you think the parents of the boys in your class read to them at home?	0%	30%	70%	0%
5. Do you think boys' classroom behavior impacts their reading performance?	10%	80%	10%	0%
6. Do you read aloud to your class on a regular basis (at least 3 days per week).	90%	10%	0%	0%
7. Do reading grades influence your male students better when they receive good grades or to give up when they receive poor grades?	10%	30%	60%	0%
8. Do you think the boys in your class put forth enough effort in reading?	0%	50%	50%	0%
9. Do you select different reading materials based on the interest of the boys in your classroom?	10%	80%	10%	0%
10. Do you think boys in your class are motivated or have a good attitude about reading?	0%	60%	40%	0%
11. Do you feel that the boys in your classroom are encouraged to read by praise from the teacher?	20%	40%	40%	0%

(continued)

Questions	0-5 yr.	6-10 yr.	11-15 yr.	15 or more yr.
	Slower Brain Development	Stereotyping Males	Lack of Male Role Models	Access to Reading Material at Home
12. Which factor plays the biggest role in male reading achievement?	20%	30%	40%	10%

Summary

The purpose of this mixed-methods study was to determine factors that teachers perceived as influential in male reading achievement. Another purpose of the study was to determine if there was a significant relationship between motivation for reading and end-of-grade reading scores for 2013-2014 and 2014-2015. The quantitative data were presented first and then the qualitative data with teacher interviews organized by the research questions. A chi square was conducted to assure that the male and female data were equally distributed throughout the 10 classrooms in the study. Research Question 1 was to determine if male and female students scored the same on the motivation survey. In Schools A and B, the girls scored higher on reading motivation; but in School C, it was totally the reverse with boys scoring much higher on the motivation survey than the girls. Research Question 2 was to compare boys' motivation scores to their end-of-grade reading scores. Although there were some slight differences, there was not a statistical difference in motivation and reading scores.

Half of the teachers felt their boys struggle in reading, but the data show that in seven of the 10 classes, girls were outperforming boys on the end-of-grade reading test. The teachers felt the largest factor in male reading achievement was the lack of male role

models. This could be the lack of male elementary teachers as well as a lack of male role models for boys at home. Even though boys scored lower on the end-of-grade tests, it was not enough of a statistical difference. Teachers need to remember to plan reading instruction to meet the interests of their male students. Boys and girls do have different reading choices and reading material that will engage them in the reading process.

The results of the statistical analysis as well as quantitative and qualitative analysis have been presented in this chapter organized by the three research questions. A discussion and interpretation of the findings, implications, recommendations, and suggestions for further research can be found in Chapter 5.

Chapter 5: Discussion

Introduction

The purpose of this mixed-methods study was to determine factors that teachers perceived as influential to male reading achievement. The study also investigated to see if there was a significant relationship between the MRQ scores and end-of-grade reading scores for 2013-2014 and the same cohort of boys in 2014-2015 on the North Carolina end-of-grade reading test. The qualitative strand of the study addressed the perceptions and expectations third-grade teachers have of male students and sought to determine if there was congruence between teacher beliefs and male student test scores on the North Carolina end-of-grade reading test.

The instruments used for the study included the MRQ. The survey was given to all third-grade students in Schools A, B, and C. The MRQ is a 53-question survey designed to assess different aspects of elementary children's motivation for reading. The researcher also designed a survey on reading motivation using the online tool Web Survey Master, which was utilized in the second phase of the study and administered to the 10 third-grade teachers in Schools A, B, and C. The survey consisted of 12 questions (Appendix B) regarding the teacher's everyday interaction with boys in a classroom setting.

Interpretation of Data

Research Question 1

How do third-grade boys' motivation and attitude toward reading compare to third-grade girls' motivation and attitude toward reading in Schools A, B, and C? A two-way ANOVA was used to investigate Research Question 1. There was no main effect for

gender, $F(1,110)=0.19$, $p=.663$; therefore, the null hypothesis was not rejected. There was no main gender effect for school, $F(2,110)=4.09$, $p=.02$; therefore, the null was rejected. Scheffe post hoc comparisons were conducted on the data in Table 7; students who attended School C had significantly lower (*mean difference*=13.24) reading motivation than students who attended School A, $p=.022$. While students who attended School B had lower reading motivation than students who attended School A, it was not significantly lower, $p=.726$. Students who attended School C had lower reading motivation than students who attended School B, but it was not significantly lower $p=.225$. See Figure 8. There was a significant interaction between gender and school, $F(2,110)=3.70$, $p=.028$. Overall reading motivation did not significantly differ across schools. Further analyses were conducted of three sample t tests, one for each school. Reading motivation was higher for females in School A ($M=163.44$, $SD=22.03$) and School B ($M=158.56$, $SD=14.89$) but was reversed in school C with reading motivation higher for males ($M=155.47$, $SD=24.33$). There was a mean difference of 17.67 which is statistically significant. Based on the research on boys' reading achievement, the researcher was surprised by the data from School C in which boys' motivation was higher than girls. Boys tend to have higher self-competence beliefs and are more oriented to performance goals, while girls are more oriented to mastery goals and have higher intrinsic motivation in learning (Lau, 2009). The little motivation that boys are experiencing when reading a text can be due to the value that they place on reading activities within or outside of the classroom (Gambrell & Marinak, 2008). According to Gambrell and Marinak (2008), the cognitive evaluation theory and personal causation theory suggests that if students are motivated intrinsically by an activity and not

controlled forces, they are more likely to return to or frequently engage in the activity if given the chance. When students are engaging in literature related to topics that interest them, their reading motivation, attitude towards reading, and effort all improve.

Research Question 2

How do the motivation and reading attitude of third-grade male students correlate with their reading achievement on the North Carolina end-of-grade reading test in third grade and the next year in fourth grade? This question was tested with the Pearson Correlation (Table 10). There was no significant relationship between motivation of the third-grade male students who were surveyed and their reading achievement on the end-of-grade test. Boys who scored poorly on the end-of-grade third-grade reading test did not have lower scores on the reading motivation questionnaire which looks at how often they read and their attitude toward reading. There was no significant relationship between motivation of the third-grade male students and their reading achievement on the North Carolina end-of-grade reading test for the 2013-2014 school year, $r(56) = .008$, $p = .954$, two-tailed; therefore, the null hypothesis was not rejected. There was no significant relationship between motivation of the third-grade male students and their reading achievement on the North Carolina end-of-grade reading test for the 2014-2015 school year, $r(51) = -.07$, $p = .63$, two-tailed; therefore, the null hypothesis was not rejected.

Bandura (1986) suggested that motivation (or a lack thereof) is the result of an individual's self-efficacy related to a task. Bandura defined self-efficacy as the beliefs we have about ourselves that cause us to make choices, put forth effort, and persist in the face of difficulty. And for help in the classroom, Bandura noted that one of the most powerful sources of self-efficacy is mastery experience. Mastery experience occurs when

a child evaluates his or her own competence after learning and believes their efforts have been successful. Mastery experiences increase confidence and willingness to try similar and more challenging tasks which gives students the motivation to try the skill again. In addition, studies have also found that social experiences play a powerful role in the development of self-efficacy. The beliefs and behaviors held by teachers and peers are important in building the self-efficacy of all children in the classroom. Further study could involve discussing with teachers from this school how they are keeping boys motivated to read and what kind of reading programs they are using in this school.

Research Question 3

What factors are perceived by teachers as influencing male reading achievement?

There were 10 third-grade teachers at three elementary schools who participated in the interviews and took the teacher reading motivation survey. Listed below are implications for the results of their data.

Implications for School A, Teacher 1

Teacher 1 in School A has been teaching for 8 years. She stated that boys in her classroom struggle with reading more than the girls which matches the data from the last 2 years on end-of-grade reading tests for third grade. In 2013-2014, her boys scored 44% and the girls scored 61%; and in 2014-2015, this same cohort of boys scored 50% and the girls scored 61%. This is a significant difference in scores, but the teacher is at least aware that boys are not doing as well as girls. This teacher might need to find more ways to engage her boys in reading. She could build learning around student interests and abilities and real-life situations they would find authentic. Students could take an interest inventory so the teacher could find more activities that would interest boys. This will tap

into their need for reading to be purposeful and meaningful to their lives. Boys involved in a study in Leeds, England, read George Orwell's *Animal Farm* and then shared their reading experiences with boys in another school by email. Researchers found that the boys, despite poor reading levels and low motivation, were enthusiastic about sharing their reading experiences by email. Sharing their reading experiences electronically enabled the boys to expand the range and purposes of their reading, and the boys' teacher was able to use this experience to develop additional strategies for teaching and assessing reading (Babbage, 2000).

Implications for School A, Teacher 2

Teacher 2 in School A has been teaching for 4 years. This teacher stated that boys in her class struggle more than the girls in reading, but the test scores did not reflect that boys are struggling in reading. On the 2013-2014 end-of-grade reading test, boys in her classroom outperformed the girls by 12% proficiency; and the same cohort of boys scored almost equal to the girls on the 2014-2015 end-of-grade fourth-grade test with boys scoring 57% proficiency and girls 60%. She stated that she does not choose materials that she thinks boys will specifically like. Even though the boys in this classroom are performing as well as girls, the teacher could still consider boys reading interests when planning lessons. Davies and Brember (1998) argued that "the literacy practices that appeal to some boys are not always valued in the context of institutionalized school literacy and may be overlooked, to the frustration of both student and teacher" (p. 512). Teachers need to be more accommodating when it comes to boys' reading interests and strategies they use to engage them in reading. If they are interested in electronics, incorporate electronics into reading lessons whenever possible. When

planning lessons, the teacher should use comic books, graphic novels, games, and humor to draw boys into the story being shared with the class.

Implications for School A, Teacher 3

Teacher 3 in School A has been teaching for 5 years. She does not feel that the boys in her class struggle in reading more than the girls; however, this is not reflected in her students' test scores. Boys in her classroom scored 8% lower than girls on their 2013-2014 end-of-grade reading test, and the same cohort of students scored 6% lower on the 2014-2015 fourth grade end-of-grade reading test. On the survey, this teacher commented that she did not feel boys in her class struggled in reading. In the interview, she stated she was having difficulty getting boys engaged in reading. There was a lack of consistency in her answers. According to her answers, she is not currently considering boys' needs when planning lessons, and that would be a good place for her to start. The teacher should find out what topics are of interest to boys and plan units using those topics.

Most critically, I believe we must make absolutely sure that for every boy there is a good 'fit' between what makes him thrive as an individual and what his school actually provides for him. . . . By designing an inviting educational experience for boys, schools can help them boost not only their academic performance and self-esteem, but also their hopefulness about the opportunities ahead of them.

(Pollack, 1998, p. 250)

Implications for School A, Teacher 4

Teacher 4 at School A has been teaching for 7 years. This teacher stated that boys in her class are motivated to read and have a good attitude toward reading. She does not

feel that boys in her classroom struggle more than girls in reading, and this is reflected in her students reading scores. In 2013-2014, boys in her classroom scored two percentage points higher than girls, and this same cohort of students scored equal at 64% proficient on the fourth grade end-of-grade reading test in 2014-2015. This teacher also felt that the lack of male role models was a big factor in the success of her boys in reading, which Carrington and McGee (2008) agreed is a large area of concern. In our society, we have many young boys who do not have good male role models at home; and most elementary teachers are female. To help with this problem, teachers could have males come into the class and read to the students and have older male students who are doing well in reading come and share their experiences with the younger boys.

Implications for School B, Teacher 1

This teacher has been teaching for 18 years and felt that in her classroom experience, boys do not struggle more than girls. This is not reflected in her end-of-grade reading scores. Boys scored 18% less than girls on the third grade end-of-grade reading test in 2013-2014 with boys scoring 51% and girls 69%. The boys in this same cohort of students scored 42% and girls 67% on the fourth grade end-of-grade reading test in 2014-2015. The data show that her boys are scoring much lower than the girls in her class. Based on this teacher's answers on the survey and in the interview, she is not aware of how her boys are performing in reading compared to girls. This is only one source of data, but the boys are performing significantly lower than the girls in this classroom. This teacher could benefit from learning the interest of boys in her classroom and using this information to plan lessons. Boys can read, but they need to be moving around or doodling. They need to be doing something that is activating their brains (Guthrie et al.,

1996). Boys usually get more involved with hands-on projects than just reading a book and answering questions. Make concepts from the book relevant to their everyday life and experiences. This teacher also stated that getting parents to read with their boys at home was a challenge. This is a problem which she does not have control over, but she should continue to encourage parents to read with their child at home and read in front of them to be good reading role models. This third-grade teacher also talked about boys' behavior being a negative factor on reading achievement.

Implications for School B, Teacher 2

Teacher 2 in School B has been teaching for 14 years and feels that boys' behavior gets in the way of their reading achievement. She stated that usually her boys and girls achieve evenly in reading, and her data confirmed that statement. Her 2013-2014 scores for boys were 67% and 65% for girls. Scores for this same cohort of students on the fourth grade end-of-grade test for reading were 64% proficient for both boys and girls. There was a very slight difference in the boys and girls in 2013-2014, only 2%; and in 2014-2015, the boys and girls scored exactly the same at 64%.

This teacher is well aware of the reading data of her students and stated they were performing equally on reading tests. Although the boys in this class scored equally with girls on the end-of-grade reading test, the boys did have lower reading motivation questionnaire scores. These scores would indicate that boys in this class do not enjoy reading as much as the girls and do not read as often as the girls. Many factors could be the cause of this including lack of male role models, parents not reading with them at home, feeling reading is a feminine activity, and lack of interest in reading topics. This teacher could make sure she is considering boys' interests and ways to engage them in

reading when planning reading activities. She could use cooperative learning groups to give boys a chance to be more active and social. Teachers need to make sure they are incorporating different learning styles. Boys are usually more visual learners and may need to see more pictures and diagrams to grasp a concept.

Implications for School C, Teacher 1

Teacher 1 at School C has been teaching for 14 years and feels that boys in her classroom struggle more in reading than girls. This classroom has a drastic difference in reading scores but in the opposite direction. Boys are outperforming girls. Girls in this class are scoring much lower on the third grade end-of-grade North Carolina reading test than boys. Reading scores for 2013-2014 were 62% for boys and 37% for girls on the third grade end-of-grade reading test. In the same cohort of students, boys scored 56% and girls 45% on the fourth grade end-of-grade reading test in the 2014-2015 school year. This teacher does not seem to be aware that boys are outperforming girls in her classroom. According to her answers on the survey and the interview, she is not cognizant of their reading scores. She stated that she looks for books that will interest boys; and it shows in her reading scores, as boys are performing better than the girls. She stated that boys' behavior has a negative impact on their reading scores, but her boys are performing higher than the girls. She also stated that she does not feel her boys put enough effort in reading and are not motivated to read, yet they have higher scores. According to the data, her perception of boys' motivation and expectations are not aligned with what is actually happening in her class.

Implications for School C, Teacher 2

Teacher 2 at School C has been teaching for 8 years and also feels that boys

struggle more than girls in reading. She does not select reading materials specifically for boys' reading interests; but based on reading scores, this would probably be beneficial. Her reading scores do indicate that girls are doing better than boys. In 2013-2014, the boys in her classroom scored 30% and girls scored 53%. In the same cohort of students, boys scored 42% and girls 47% on the fourth grade end-of-grade reading test in the 2014-2015 school year. This teacher is aware that boys in her class are not performing as well as girls but is not looking at boys' interests to plan lessons. Students, neither male and female, possess nor sufficiently use reading strategies that are necessary to adequately make sense of a text, which explains in part the difficulty some adolescents have with this facet of literacy (Cantrell, Chambers, Carter, Rintamaa, & Madden, 2009). The need, therefore, arises to teach the strategies employed by good readers to those who have difficulty reading.

Implications for School C, Teacher 3

Teacher 3 at School C has been teaching for 13 years and feels that boys struggle more in her class in reading than girls which corresponds with her reading data. The boys in her class scored 35% and the girls scored 44% on the third grade end-of-grade reading test. On the fourth grade end-of-grade reading test, the same cohort of students scored 35% for boys and 30% for girls. Her scores matched her statements with boys scoring 9% lower in 2013-2014 on reading proficiency. Boys scored 5% higher than girls the next year in fourth grade. This teacher appears to have analyzed her students' end-of-grade scores and knows how they are performing. According to her data, boys in her classroom are not reading or being read to at home by their parents. She also stated that male role models were an issue for the boys in her classroom. Boys need to see role

models, male and female, reading to show them reading is not only for girls. Parents and teachers need to encourage boys to read anything including comic books, graphic novels, or the newspaper. We need to nurture boys reading in any way we can. Teachers need to use different learning styles to meet the needs of all students. Moreover, an eclectic approach to teaching reading, where various cognitive and metacognitive skills are taught, appears to be more effective with student achievement in reading than favoring only one teaching method. This diversity thus enables students to discover the one that is most compatible with their learning style (Logan & Johnston, 2010). This teacher was also quick to say that she felt boys' behavior and lack of motivation play a negative role in their reading achievement; but if lessons were differentiated to meet the needs of each student, maybe the reading motivation would improve. This teacher also talked about the push to do well on testing in third grade and the fact that testing passages are geared more toward females. The testing issue becomes a focus when students are old enough to begin testing; but if you focus on teaching the standards with strategies to engage students, students will do as well on the test as if you tried to teach to the state test.

Implications for School C, Teacher 4

Teacher 4 at School C has been teaching for 4 years and does try to plan lessons using materials that boys would find interesting. She does not feel that boys in her classroom struggle in reading more than girls, but her end-of-grade reading scores show boys performing lower than girls. The perception that boys do not struggle in this classroom did not match the data which show that in 2013-2014, boys scored 30% and girls scored 49% on the third grade end-of-grade reading test for North Carolina. On the 2014-2015 end-of-grade test, the same cohort of boys scored 43% and girls scored 46%.

This teacher stated that boys in her classroom are performing as well as girls. This teacher did not mention in the interview that she was aware that boys in her class scored lower on the end-of-grade test. Even though the test is only one data source, boys in this class scored 19% lower than the girls, which is a significant difference. Teachers must continually reinforce the connection between effort and achievement with struggling students. An environment where success is possible and students set reachable goals can have a profound, positive effect on struggling students (Marzano, Pickering, & Pollock, 2001).

Overall Teacher Perceptions and Beliefs

Each of the 10 teachers in the study completed a 12-question reading motivation survey (Table 12). The years of teaching experience of these teachers ranged from 2-15 years, and the answers were still spread evenly among the answer choices. Their responses and beliefs are broken down by topics below.

Treating All Students Equally

A common response from teachers when asked about gender inequality in classrooms is that they treat all of their students the same. There are two problems with this statement. First, students are diverse and have different learning issues; thus, treating all students in the same way means that some students will have a better learning experience than their peers. Second, teachers may be ignoring their unconscious gender biases towards their students, their schools, and themselves. If ignored, these gender biases, which may have developed from cultural norms, may lead to bias in the classroom. Teachers who are not aware that boys are not performing well may have a gender bias. Teachers' gendered perceptions of student ability are also reflected in the

type of praise and expectations they have of their students. Teachers often give girls less meaningful and less critical praise than boys. Boys' work is described as unique or brilliant, while girls' work is often undervalued, critically ignored, and praised for its appearance. This aspect of teacher behavior is particularly detrimental to girls because it means they do not receive feedback on their work that could help them develop deeper understandings of concepts (Liu & Carless, 2006).

Boys Negative Behavior

Eight of the 10 teachers who participated in the survey believed that boys' negative behavior issues get in the way of their reading achievement. The teachers stated that boys are just naturally more active than girls and often have shorter attention spans, which makes it hard to keep their attention for long periods of time. It may be that behavioral problems lead to reading problems. "Off-task and disruptive behaviors might decrease attending to instruction and activities, thereby worsening a child's school performance" (Coie & Zakriski, 1996, p. 1061). The researcher feels boys' behavior is a big concern because 80% of the teachers feel this is impacting boys' reading achievement. In my experience, some boys who are having difficulty in reading exhibit negative behavior because they are not performing well academically. Teachers need to be diligent in finding out if reading is the issue or behavior is the issue in order to help boys be successful. Teachers need more training in how to teach boys and deal with their active and sometimes aggressive behaviors.

Absence of Male Role Models

The teachers felt the largest factor in male reading achievement was the lack of male role models. Some researchers believe that we have feminized our curriculum

because the majority of teachers, especially in elementary, are female. Students are more often read to by their mothers and their teacher is female, so boys may presume that reading is a more feminine activity. Martino (2006) expressed that “we have feminized the elementary school and this is playing a role in boy’s lack of reading interest and motivation” (p. 199). In the interviews, teachers discussed that some of their boys are living with single moms or grandmothers and have no male role models in their lives. The lack of male elementary teachers as well as a lack of male role models for boys at home could impact reading ability. As children’s experiences grow, they begin to organize them into categories of “like me” and “unlike me.” While children learn the cultural stereotypes associated with both sexes, they learn more about their own sex. By age six, children can reliably make predictions about other same-sex children’s behaviors, and by age eight they can also make predictions about the behaviors of children of the other sex (Martin, 1993). Children observations of same-sex role models are important to gender identity development (Golombok & Fivush, 1994).

Boys Struggling in Reading

Fifty percent of the teachers surveyed felt their male students struggle in reading, but the data show (Table 11) that in seven of the 10 classes, girls were outperforming boys on the end-of-grade reading tests for 2013-2014 in third grade and in the same cohort of students on the fourth grade end-of-grade reading tests in 2014-2015. This indicates that three of the teachers are not looking at their testing data and analyzing the difference in performance in boys and girls. In order for the teachers to improve boys’ reading scores, they must first be aware that there is a problem so they must first look at and own the data. Teachers must then realize that boys learn differently than girls and

teach them accordingly. Bem (1981) believed that children form their gender identities from the associations they develop from their culture. Society beliefs about what constitutes “male traits” and “female traits” influence this development of a gender schema. These gender schemas then have an impact not only on how people process social information but also on their attitudes, beliefs, and behaviors. People engage in behaviors that are consistent with their schema for gender-appropriate behavior (Bem, 1981). If boys have identified reading as a feminine activity, they are less likely to read on a regular basis.

Teachers need to make sure boys have access to reading material that would interest them such as graphic novels, comic books, sports, and informational text as well as fiction. Each week as teachers plan lessons, they need to remember to include reading material and activities that would be of interest to boys. Girls’ interests should not be left out, but a balanced curriculum plan would allow boys and girls to be successful in reading.

Parental Involvement

Seventy percent of the teachers stated that parents do not read often enough to boys at home, with most stating parents read to them one time per week or less. These teachers send home reading logs for parents to sign each night that they have read with their child or at least that the child has read. Very often, teachers do not get the reading logs returned signed by parents stating they have read. It is widely recognized that if pupils are to maximize their potential from schooling, they need the full support of their parents. Attempts to enhance parental involvement in education occupy governments, administrators, educators, and parent organizations (Desforges & Abouchar, 2003).

Lemmer (2007) cited the frequency of parent-teacher contact as influencing the involvement of learners in learning and thereby improving their retention of material taught. Parental education is positively related to parent-teacher contact. The more educated the parent, the greater is their involvement in their child's education (Kgaffe, 2001). Parental involvement is also positively related to primary school learners' academic achievement: time spent on homework, favorable attitudes towards school, and reduced levels of school dropout. Parents who attend parent-teacher conferences, open houses, or other school activities show how important their children are to them (Smrekar & Cohen-Vogel, 2001).

Motivation and Effort

Because reading is an effortful activity that children can often choose to do or not do, it also requires motivation (Bandura, 1986). Fifty percent of the teachers felt that the boys in their classroom put forth enough effort in reading class, which means that half of the boys are not motivated and putting forth the effort necessary to be successful in reading. As mentioned in Chapter 2, Brozo (2010) explained it is hard to try to motivate a reluctant boy to read and is a difficult and often frustrating task for parents and teachers. An important component of motivating a student is relationship building. If a student feels comfortable with the teacher and feels like the teacher likes them and wants them to succeed, they are more motivated to perform for that teacher. One of the best things parents can do to motivate their child to read is to have plenty of available reading material in the home. Children also need to see both of their parents reading on a regular basis so they have both male and female role models. As a classroom teacher, using surveys or interest inventories is a great way to get to know your students and their

interests in reading. Teachers can also interview students and give them an opportunity to talk about how they feel about reading. There are opportunities throughout the school day to offer meaningful choices to students. Allowing students to choose at least some of what they read in class can improve their motivation.

Delimitations of Study

This study was limited to third-grade students in the three elementary schools in the district used for the study. This district was chosen because of the size of the district and the convenient location to the researcher. Socioeconomic status and race were not considered in this study.

Limitations of Study

There were a number of limitations that affected this study. The superintendent may not have been willing to grant permission to conduct the survey with these three schools in the district. The 10 third-grade teachers could have chosen not to be a part of the research. The surveys given to the students were dependent on the teacher giving the survey to each child and returning them to the researcher. The sample size may not be as large or as representative as desired based on participation and completion of the surveys by the third-grade students from each of the three schools. Each parent had to give permission for their child to participate in the survey, and they could have denied permission. The teacher was responsible for giving the survey to her students, collecting the surveys, and turning them in to the principal. When the same cohort of students were in the fourth grade, they had a different teacher which may have influenced their end-of-grade score. These are all factors that the researcher was unable to control. It was also out of the control of the researcher that some students had moved and other students were

new to the school and did not have the previous year's data.

Suggestions for Further Research

Much of the research conducted has involved male students in middle school and high school. More research needs to be completed on boys at a very early age beginning in preschool. Even though there was not conclusive evidence in this research that boys are performing lower than girls in reading, boys and girls do learn differently and teachers need to plan their lessons accordingly. Gender, like personality, temperament, learning styles, and multiple intelligences, shapes children's reactions to curriculum and instruction. Gurian and Stevens (2005) had suggestions for teaching boys and engaging them in learning. Boys need more kinesthetic experiences. Teachers should provide them with manipulatives to employ fine motor skills. They should also use graphic organizers that compartmentalize concepts into small sections to help with shorter attention spans. It is crucial to surround boys with reading material they enjoy such as sports or adventure. "Environmental print is non-costly, highly accessible, and available for use by parents from a range of socioeconomic and cultural backgrounds" and, therefore, a great resource for parents and teachers looking to engage their boys in reading (Neumann, Hood, & Neumann, 2009, p. 318). Teachers need to provide a large learning space when possible to allow more movement. Keep verbal instructions short and do not layer instructions (Gurian & Stevens, 2005). Freire and Macedo (1987) also emphasized the importance of connecting reading to one's experience with the world.

An important predictor of boys' achievement is the extent to which the school culture expects, values, and awards academic effort. A research study to determine the extent to which schools seek to establish expectations of male readers and reward their

efforts would be beneficial to the literature. Schools need to set high expectations, treat each student as an individual (as opposed to gender stereotyping), and motivate all students to invest in their education (DiPrete & Buchmann, 2006). Haupt (2003), coordinator of Children's and Young Adults' Services at the North Vancouver District Public Library, declared,

I've decided to be overtly and blatantly sexist in everything from the way I approach storytelling to the books I promote. It's not that I don't think that boys and girls . . . Can't read and enjoy the same books . . . But [I am convinced] . . . that our ability to promote reading can be greatly enhanced by recognizing biological and developmental differences between the guys and the gals. (p. 20)

Both boys and girls need to see that reading is important and that it can blend with their academic or professional goals. For boys, if reading is identified as being feminine, then reading would diminish rather than develop a boy's fragile sense of self and growing masculinity (Haupt, 2003).

Further studies on male motivation and how to engage boys in reading need to be completed. This study did not take into consideration the boys' ethnicity or socioeconomic situations, so further study with these variables may be beneficial. Boys and girls are seen to have inherent or fixed characteristics that define who they are and determine their natural interests and behaviors. Because the qualities that define boys' and girls' masculinity and femininity are understood to be innate, educational success rests upon acknowledging and accommodating them (Rowan, Knobel, Bigum, & Lankshear, 2002).

Eight of 10 teachers interviewed talked about boys' behavior and that it had a

negative impact on their reading achievement. This would be a topic for further research. Is the behavior the reason they are not reading, or are they exhibiting negative behaviors because they are struggling in reading and try to hide that with negative behavior?

Another possible study is researching boys who are performing well in reading and causes or reasons for this success.

In Conclusion

Even though the results of the research of third-grade students did not indicate a significant difference in male and female reading scores, it is apparent after interviewing these 10 classroom teachers that they feel male reading achievement is an issue. Seven of the 10 classrooms showed that girls outperformed the boys in 2013-2014 on the end-of-grade North Carolina reading test. In the same cohort of students, six of 10 classes of boys performed lower than the girls on the fourth grade end-of-grade reading test (Table 11). In Schools A and B, girls scored much higher on the reading motivation and attitude survey. The third-grade students at School C had reverse data with boys having higher scores on the reading motivation questionnaire than girls (see Figure 9). This is an interesting difference in data. Based on research and answers from teachers, boys usually struggle and have lower motivation than girls. There could be many reasons for this difference in School C. This school could be using a different reading program, or the school could have placed a larger emphasis on literacy.

Classroom teachers need to consider the gender of the students being taught and assure that the materials chosen for instruction are as interesting and engaging for the boys as they are for the girls in the classroom; however, many caution against creating a boys versus girls approach when discussing reading needs but rather recommend noticing

the individual differences of each child. It is not helpful to the educational needs of male students to constantly be compared to female students (Mead, 2006). Teachers need to consider male interests when choosing reading instruction strategies and learning styles; but even more important, teachers need to build relationships with their students.

Student comments about the teachers to whom they respond positively suggest that keeping a group of students engaged in learning requires having the latitude to be highly creative, to build strong relationships, and to tailor the learning process to the needs of each student. In a survey of students from 13- to 17-years old from across the United States, approximately three in four said that they worked harder for some teachers than for others. When asked why, the most common reason given was that they liked some teachers more than others. However, one in eight said they worked to the level of the teacher's expectation. Another 12% said that they worked harder for teachers who care (Crabtree, 2004).

Regardless of their gender, reading instruction should be planned to meet each student's individual needs. Literacy is crucial for boys and girls to be productive members of society, and we need to find ways to help all children be successful. Supportive classrooms where students can experience success with teachers skilled in teaching reading are key to helping all students prepare for the literacy demands they will face in society.

References

- Adem, M. (2016). How gender stereotyping can restrict boys' learning. Retrieved from <https://www.brightongrammar.vic.edu>
- Alloway, N., & Gilbert, P. (1997). Boys and literacy: Lessons from Australia. *Gender and Education, 9*(1), 49-61.
- American Psychological Association. (2011). Retrieved from <http://www.apa.org/pi/lgbt/resources/guidelines.aspx>
- Babbage, J. (2000). Using email to assist reading. Retrieved from www.canteach.gov.uk/research/grant/
- Baker, L., & Wigfield, A. (1999). Dimensions of children's motivation for reading and their relationship to reading activity and reading achievement. *Reading Research Quarterly, 34*, 452-477.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Edgewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1997). Self-efficacy toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.
- Baron-Cohen, S. (2003). *The essential difference: The truth about the male and female brain*. New York: Basic Books.
- Baumann, J. F., & Bason, J. J. (2004). Survey research. In N. K. Duke & M. H. Mallette (Eds.), *Literacy research methodologies* (pp. 287-307). New York, NY: Guilford.
- Baumgardner, J. (2000). *Manifesta: young women, feminism and the future*. New York: Farrar, Straus, and Giroux.
- Bem, S. (1981). gender schema theory and its implications for child development: Raising gender-aschematic children in a gender-schematic society. *Psychological Review, 88*, 354-364.
- Boeije, H. (2002). A purposeful approach to the constant comparative method in the analysis of qualitative interviews. *Quality & Quantity- International Journal of Methodology, 36*, 391-409.
- Booth, D. (2000). Even hockey players read. *Dublin: Pembroke Publishing*.
- Booth, D. (2002). Even hockey players read: Boys, literacy and learning. *Markham, ON: Pembroke*.

- Brozo, W. G. (2002). *To be a boy, to be a reader. Engaging teen and preteen boys in active literacy*. Newark, DE: International Reading Association.
- Brozo, W. G. (2010). *To be a boy, to be a reader* (2nd ed.). Newark, DE: International Reading Association.
- Brummit-Yale, J. (2013). *Boys and reading: Strategies for success*. Retrieved from <http://www.k12reader.com/boys-and-reading>
- Cantrell, S., Chambers, A., Carter, J., Rintamaa, M., & Madden, A. (2010). The impact of a strategy based intervention on the comprehension and strategy use of struggling adolescent readers. *Journal of Educational Psychology, 102*(2), 257-280. Retrieved from <http://dx.doi.org/10.1037/a0018212>
- Carrington, B., & McGhee, A. (2008). Boys' underachievement and the feminization of teaching. *Journal of Education for Teaching, 34*, 109-120.
- Center on Education Policy. (2009). State test score trends through 2007-08, part 4: Has progress been made in raising achievement for students with disabilities? Washington, DC.
- Clark, C., & Douglas, J. (2011). *Young people's reading and writing: an in-depth study focusing on enjoyment, behavior, attitudes and attainment*. London: National Literacy Trust.
- Clement, A. M., O'Donnell, M., Abel, J., Pekar, J., & Cutting, L. E. (2006, Aug.). Sex differences in cerebral laterality of language and visuospatial processing. *Brain and Language, 150-158*.
- Clifford, J.C. (1989). *Man/woman/teacher: Gender, family and career in American educational history. American teachers: Histories of a profession at work*. New York: Macmillan.
- Coie, J., & Zakriski, A. (1996), A comparison of aggressive-rejected and nonaggressive-rejected children's interpretations of self-directed and other-directed rejection. *Child Development, 67*, 1048-1070.
- Coles, M., & Hall, C. (2002) Gendered reading: learning from children' reading choices. *Journal of Research in Reading, 25*(1), 96.
- Crabtree, S. (2004, June 4). Teachers who care get most from kids. The Detroit News: Schools. Retrieved from www.detnews.com/2004/schools
- Davies, J., & Brember, I. (1998). Standards in reading at key stages: A cause for celebration. A seven-year cross-sectional study. *Educational Research, 40*(2), 1-9.

- Dee, T. S., & Cohodes, S. R. (2005). Out-of-field teachers and student achievement: Evidence from matched-pairs comparisons. *Public Finance Review*. August, 2005.
- Desforges, C., & Abouchar, A. (2003). The impact of parent involvement, parental support and family education on pupil achievement and adjustment: A review of literature. Retrieved April 17, 2014, from www.dcsf.gov.uk/research/rb433.doc
- DiPrete, T. A., & Buchmann, C. (2006). Gender-specific trends in the value of education and the emerging gender gap in college completion. *Demography*, 43(1), 1-24.
- Donhun, C. (2007). The role of high school performances explaining women's rising college enrollment. *Education Review*, 26, 450-462.
- Draves, W. (2005). Why boys under perform in school. Retrieved from www.williamdraves.com/works/boys.htm
- Dutro, E. (2002). But that's a girls book! exploring gender boundaries in children's reading practice. *Reading Teacher*, 55(4), 376-384.
- Estyn, M. (2008). Closing the gap between boys' and girls' attainment in schools. Retrieved from <https://www.estyn.gov.wales/thematic-reports/literacy-key-stage-3-june-2014>
- Faust, M., & Kandelshire-Waldman, O. (2001). The effects of different approaches to reading instruction on letter detection tasks in normally achievement and low achieving readers. *Reading and Writing: An Interdisciplinary Journal*, 24(5), 545-566.
- Freire, P., & Macedo, D. (1987). *Literacy: Reading the word and the world*. South Hadley, MA: Bergin & Garvey Publishers, Inc.
- Friend, J. (2007). Implications of gender based school reform in Philadelphia. *American Educational History Journal*, 34(1), 55-67.
- Gambrell, L. B., & Marinak, B. (2008). Intrinsic motivation and rewards: what sustains young childrens engagement with text? *Literacy Research & Instruction*, 47(1), 9-26.
- Garrett, B. (2002). *Personal identity and self-consciousness*. New York, NY: Rutledge
- Glesne, C. (1999). *Becoming qualitative researchers: An introduction* (2nd ed.). Don Mills, Ontario, Canada: Longman.
- Glossary of Education Reform. (2013). In S. Abbott (Ed.). Retrieved from <http://edglossary.org/hidden-curriculum>

- Golombok, S., & Fivush, R. (1994). *Gender development*. London, England: Cambridge University Press.
- Gunning T. (2005). *Closing the literacy gap*. Columbus, OH: Allyn & Bacon.
- Gurian, M. (2001). *Boys and girls learn differently! A guide for teachers and parents*. San Francisco: Jossey-Bass.
- Gurian, M., & Stevens, K. (2005). *The minds of boys*. San Francisco: Josey Bass.
- Gurian, M., & Stevens, K. (2010). Ten essential strategies for teaching boys effectively. *ASCD Express*, 6(4).
- Guthrie, J. T. (2008). *Engaging in adolescents in reading*. Thousand Oaks, CA: Corwin Press.
- Guthrie, J. T., Van Meter, P., McCann, A., Wigfield, A., Bennett, L., Poundstone, C., & Mitchell, A. (1996). Growth in literacy engagement: changes in motivations and strategies during concept-oriented reading instruction. *Reading Research Quarterly*, 31, 306-325.
- Guthrie, J. T., Wigfield, A., Barbosa, P., Perencevich, K. C., Taboada, A., Davis, M. H., Tonks, S. (2004). Increasing reading comprehension and engagement through concept-oriented reading instruction. *Journal of Educational Psychology*, 96, 403-423.
- Hall, C., & Coles, M. (2001). *Boys, books and breaking boundaries: Developing literacy in and out of school*. Buckingham, England: Open University Press.
- Hammett, R., & Sanford, K. (2008). *Boys and girls and the myths of literacies and learning*. Toronto: Canadian Scholars' Press.
- Hargreaves, A., & Fink, D. (2006). *Sustainable leadership*. San Francisco, CA. Jossey Bass.
- Haupt, A. (2003). Where the boys are. *Teacher Librarian*, 30. Farmington Hills, MI: Kurcyla.
- Hernandez, D. J. (2011). Double jeopardy: How third grade reading skills and poverty affect high school graduation. *Educational and Psychological Measurements*, 38(2). Retrieved from <http://fcd-org/sites/default/files/DoubleJeopardyReport.pdf>
- Jennings, J. (2010). Helping boys in reading without starting a gender war. *Education Week*, 29(29).

- Jones, S., & Dindia, K. (2004). A meta-analytic perspective on sex equity in the classroom, *Review of Educational Research*, 74(4), Winter 2004, 443-471.
- Kafer, K. (2004). *Where do we go from here?* Vol. 1775, May, 2004. Washington, DC. Heritage Foundation.
- Kafka, J. (2013). The story behind the achievement gap: Boys and the importance of reading. Retrieved from <http://www.promoteprevent.org/blog/story-behind-achievement-gap-boys-and-importance-reading>.
- Karges-Bone, L. (1998). *Pink & blue: How gender can shape your curriculum*. Carthage, IL: Teaching & Learning Company.
- Karges-Bone, L. (2010). *Differentiated pathways of the brain*. Dayton, OH: Lorenz Educational Press.
- Kgaffe, M. M. (2001). Barriers to parent involvement in rural communities in North West Province. M.Ed Thesis. Johannesburg: University of South Africa.
- Kimmel, M. (2010a, November). What about the boys? WEEA Digest (pp. 1-2, 7-8). Retrieved from www.2.edc.org/WomensEquity/pdffiles/males.pdf
- Kimmel, M. (2010b). *The boy crisis*. Stockholm: Elanders.
- Kindlon, D., & Thompson, M. (2000). *Raising Cain: Protecting the emotional life of boys*. New York: Ballantine.
- Kleinfeld, J. (2009). The state of American boyhood in gender issues. *Gend. Issues* 26(2), 113-129. New Jersey: Transaction Publishers.
- Kucer, S. B., & Tuten, J. (2003). Revisiting and rethinking the reading process. *Language Arts*, 80, 38-44.
- Lau, K. L. (2009, December). Grade differences in reading motivation among hong kong primary and secondary students. *British Journal of Educational Psychology*, 79(4), 713-733.
- Lazarus, B. D., & Callahan, T. (2000). Attitude toward reading expressed by elementary school students diagnosed with learning disabilities. *Reading Psychology*, 21, 271-282.
- Lee, J., Perie, M., Grigg, W., & Donahue, P. (2007). The nation's report card: Reading 2007 (NCES 2007-496). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.

- Lemmer, E. N. (2007). Parent involvement in teacher education in South Africa. *International Journal about Parents in Education*, 1(1), 218-229.
- Lenroot, R. K., Gogtay, N., Greenstein, D. K., Wells, E. M., Wallace, G. M., Clasen, L. S., . . . Giedd, J. N. (2007). Sexual dimorphism of brain developmental trajectories during childhood and adolescence. *NeuroImage*, 36, 1065-1073.
- Limbrick, L. (2012). Reading and related skills in the early school years: Are boys more likely to struggle? *International Journal of Disability, Development and Education*, 59(4), 341-358.
- Lipson, M. Y., & Wixson, K. K. (1992). *Assessment and instruction of reading disability: An interactive approach*. NY: Harper Collins.
- Liu, N. & Carless, D. (2006). Peer feedback: The learning element of peer assessment. *Teaching in Higher Education*, 11(3), 279-290.
- Logan, S., & Johnston, R. (2010). Investigating gender differences in reading. *Educational Review*, 62(2), 175-187.
- Maccoby, E. (1988). Gender as a social category. *Development Psychology*, 24, 755-765.
- Mael, F. (2010). Single sex schooling and academic attainment at school and through the life course. *American Education Research Journal*, 47, 6-36.
- Martin, C. L. (1993). New directions for assessing children's gender knowledge. *Developmental Review*, 13(2), 184- 204.
- Martin, A. J. (2002), December). *Improving the educational outcomes of boys final report to ACT department of education, youth and family services*. Tuggeranong, Australian capital territory: Department of Education, Youth and Family Services, Retrieved from http://www.det.act.gov.au?_data/assets/pdf_file/0005/17798/Ed_Outcomes_Boys.
- Martino, W. J. (2006). Male teachers as role models: Addressing issues of masculinity, pedagogy and the re-masculinization of schooling. *Curriculum Inquiry*, 38(2), 189-223. Retrieved February 8, 2010, from Eric EBSCO Host.
- Martino, W., & Kehler, M. (2007). Gender-based literacy reform: A question of challenging or recuperating gender binaries. *Canadian Journal of Education*, 30(2), 406-431.
- Marzano, D., Pickering, J., & Pollock, J. (2001). *Classroom instruction that works*. Alexandria, VA: ASCD.

- Mead, S. (2006). *The evidence suggests otherwise: The truth regarding boys and girls*. Washington, DC: Education Sector.
- Measor, L., & Sikes, P. J. (1992). *Gender and schools*. New York: Cassell.
- Montague, M. (2008, Feb.). Self-regulation strategies to improve mathematical problem solving for students with learning disabilities. *Learning Disability Quarterly*, 31, 37-44.
- Mortenson, T. (2006). The state of American manhood a postsecondary education opportunity report. Retrieved October 15, 2015, from <http://www.postsecondary.org>
- National Center for Education Statistics. (2005). The condition of education 2005. Retrieved from <http://nces.ed.gov/pubsearch/pubsoimfp/asp?pubid-2006071>
- National Center for Education Statistics. (2006). The condition of education 2006. Retrieved from <http://ed.gov/pubsearch/pubsoimfp/asp?pubid-20066071>
- National Literacy Trust. (2006). The national literacy project. Retrieved September 1, 2015, from <http://www.literacytrust.org.uk/Database/Primary/3.html>
- Neilson, D. (2014). Why is literacy important? Retrieved from: <http://www.3plearning.com/literacy-important/>
- Neu, T. W., & Weinfield, R. (2007). *Helping boys succeed in school*. Waco, TX: Prufrock Press, Inc.
- Neumann, M. M., Hood, M., & Neumann, D. L. (2009). The scaffolding of emergent literacy skills in the home environment. *Early Childhood Education Journal*, 36, 313-319.
- Nevid, J. (2013). *Psychology: Concepts and applications*. Belmont, CA: Wadworth.
- Newkirk, T. (2002). *Misreading masculinity: Boys, literacy, and popular culture*. Portsmouth, NH: Heinemann.
- O'Flahavan, J., Gambrell, L. B., Guthrie, J., Stahl, S., & Alvermann, D. E. (1992, August/September). Poll of IRA member guides. *Reading Today*. Newark, DE: International Reading Association.
- Otis, N., Grouzet, F. M. E., & Pelletier, L. G. (2005). Latent motivational change in an academic setting: A 3-year longitudinal study. *Journal of Education Psychology*, 97, 170-183.

- Paton, G. (2012). Boys behind in reading. Retrieved from <http://telegraph.co.uk/education/educationnews/9555621>
- Perie, M. (2005). *NAEP 2004 trends in academic progress*. Washington, DC: U.S. Department of Education.
- Perry, D., & Pauletti, R. (2011). Gender and adolescent development. *Journal of Research on Adolescence*, 21(1), 61-74.
- Pollack, W. S. (1998). *Real boys: Rescuing our boys from the myths of boyhood*. New York: Henry Holt.
- Program for International Student Assessment. (2005). Retrieved from <http://nces.ed.gov/surveys/pisa>
- Reichert, M., & Kuriloff, P. (2004). Boys' selves: Identify and anxiety in the looking *Glass of school life*. *Teachers College Record*, 106(3), 574-576.
- Robinson, J. P., & Lubienski, S. T. (2011). The development of gender achievement gaps in mathematics and reading during elementary and middle school: Examining direct cognitive assessments and teacher ratings. *American Educational Research Journal*, 48(2), 268-302.
- Rowan, L., Knobel, M., Bigum, C., & Lankshear, C. (2002). *Boys, literacies and schooling*. Buckingham, England: Ooen University Press.
- Salomone, R. C. (2003), *Same, different, equal: Rethinking single-sex schooling*. New Haven, CT: Yale University Press.
- Sanacore, J. (2012). Showing children that we care about their literacy learning. *Preventing School Failure*, 56, 188-195.
- Sax, L. (2005). *Why gender matters: What parents and teachers need to know about the emerging science of sex differences*. Portland: Doubleday.
- Sax, L. (2007). *Boys adrift*. New York, NY: Broadway Books.
- Scieszka, J. (2003). *Guys read*. Retrieved from <http://us.penguin.com/static/packages/us/yreaders/guysread/jon.html>
- Sckunk, D. H., & Zimmerman, B. J. (1997). Social origins of self-regulatory competence. *Educational Psychologist*, 32, 195-233.
- Smith, M. W., & Wilhelm, J. D. (2002). *Reading don't fix no Chevys: Literacy in the lives of young men*. Portsmouth, NH: Heinemann.

- Smrekar, C., & Cohen-Vogel, L. (2001). The voices of parents: Rethinking the intersection of family and school. *Peabody Journal of Education, 76*(2), 75-100.
- Sommers, C. H. (2000). *The war against boys: How misguided feminism is harming our young men*. New York, NY: Simon & Schuster.
- Stotsky, S. (2012). Boys fall behind in reading skills. Retrieved from http://education.com/print/Ref_What_Boys_Reading/
- Stroud, J. B., & Lindquist, E. F. (1942). Sex differences in achievement in the elementary and secondary school. *Journal of Educational Psychology, 33*(9). Washington, DC: American Psychological Association.
- Tyre, P. (2008). *The trouble with boys: A surprising report card on our sons, their problems at school, and what parent and educators must do*. New York, NY: Crown Publishers.
- Tyre, P. (2013). It's time to worry: Boys are rapidly falling behind girls in school. Retrieved October 7, 2015, from <http://www.takepart.com/article/2013/2/14/boys-fall-behind-girls>
- United States Department of Education, National Center for Education Statistics. (2005). The condition of education (2005). (NCES 2005-094). Washington, DC: U.S. Government Printing Office. Retrieved from <http://www.nces.ed.gov/pub2005/2005094>
- Unrau, N., & Schlackman, J. (2006). Motivation and its relationship with reading achievement in an urban middle school. *Journal of Educational Research, 100*, 81-101.
- Veenman, S. (1984). Perceived needs of beginning teachers. *Review of Education Research, 54*(2), 143-178.
- Wang, M. T. (2012). Educational and career interests in math: a longitudinal examination of the links between perceived classroom environment, motivational beliefs, and interests. *Developmental Psychology, 48*, 1643-1657.
- Watson, A., Kehler, M., & Martino, W. (2010, Feb.). The problem of boys' literacy underachievement: Raising some questions. *Journal of Adolescent & Adult Literacy, 53*(5), 356-361.
- Whitmire, R. (2010). *Why boys fail: saving our sons from an educational system that's leaving them behind*. Washington, DC: AMACON Press.

- Wigfield, A., & Guthrie, J. T. (1997). Relations of children's motivation for reading to the amount and breadth of their reading. *Journal of Educational Psychology, 89*, 420-432.
- Wigfield, A., Guthrie, J. T., Tonks, S., & Perencevich, K. C. (2004). Children's motivation for reading: Domain specificity and instructional influences. *Journal of Educational Research, 97*, 299-309.
- Williamson, M. & Williamson, S. (1988). Reluctant readers: The librarian's greatest challenge. *The Book Report, 6*, 18-21. (Cited in Worthy, J. (1996), *A matter of interest-Literature that hooks reluctant readers and keeps them reading*. Reading Teacher, pp. 204-212).
- Worthy, J., Moorman, M., & Turner, M. (1999). What Johnny likes to read is hard to find in school. *Reading Research Quarterly, 34*(1), 12-25.
- Younger, M., & Warrington, M. (2005). Raising boys' achievement (Research Report No. 636). London: Department of Education and Skills.
- Zorogian, K., & Job, J. (2013). Gender in special education. Learn NC. Retrieved from <http://www.learnnc.org/lp/pages/6817>

Appendix A

Motivations for Reading Questionnaire

The Motivation for Reading Questionnaire

School name: _____ Teacher name: _____
 Student name: _____ Grade: _____ Date _____

We are interested in your reading. The sentences in this questionnaire describe how some students feel about reading. Read each sentence and decide whether it describes a person who is like you or different from you. There are no right or wrong answers. We only want to know how you feel about reading. For many of the statements, you should think about the kinds of things you read in your class.

Here are two samples to try before we start on the ones about reading:

If the statement is **very different from you**, circle a 1.

If the statement is **a little different from you**, circle a 2.

If the statement is **a little like you**, circle a 3.

If the statement is **a lot like you**, circle a 4.

I like ice cream. 1 2 3 4

I like spinach. 1 2 3 4

Okay, we are ready to start on the ones about reading. Remember, when you give your answers you should think about the things you are reading in your class. There are no right or wrong answers. We just are interested in YOUR ideas about reading. To give your answer, circle ONE number on each line.

The answer numbers are right next to each statement.

Let's turn the page and start. Please read each of the statements carefully, and then circle your answer.

Remember: Read each sentence and decide whether it describes a person who is like you or different from you. There are no right or wrong answers.

Very Different From You -1

A Little Different -2

A Little Like You - 3

A lot Like You - 4

Very Different From You -1

A Little Different -2

A Little Like You - 3

A lot Like You - 4

1. I visit the library often with my family. 1 2 3 4
2. I like hard, challenging books. 1 2 3 4
3. I know that I will do well in reading next year. 1 2 3 4
4. I do as little schoolwork as possible in reading. 1 2 3 4
5. If the teacher discusses something interesting, I might read more about it. 1 2 3 4
6. I read because I have to. 1 2 3 4
7. I like it when the questions in books make me think. 1 2 3 4
8. I read about my hobbies to learn more about them. 1 2 3 4
9. I am a good reader. 1 2 3 4
10. I read stories about fantasy and make-believe. 1 2 3 4
11. I often read to my brother, sister, friend, or relative. 1 2 3 4
12. I like being the only one who knows an answer in something we read. 1 2 3 4
13. I read to learn new information about topics that interest me. 1 2 3 4
14. My friends sometimes tell me I am a good reader. 1 2 3 4
15. I learn more from reading than most students in the class.
1 2 3 4
16. I like to read about new things. 1 2 3 4
17. I like hearing the teacher say I read well. 1 2 3 4

18. I like being the best at reading. 1 2 3 4

19. I look forward to finding out my reading grade. 1 2 3 4

20. I sometimes read to my mother or father. 1 2 3 4

21. My friends and I like to trade things to read. 1 2 3 4

22. It is important for me to see my name on a list of good readers.
1 2 3 4

23. I don't like reading something when the words are too difficult.
1 2 3 4

24. I make pictures in my mind when I read. 1 2 3 4

Very Different From You -1

A Little Different -2

A Little Like You - 3

A lot Like You - 4

25. I always do my reading work exactly as the teacher wants it.
1 2 3 4

26. I usually learn difficult things by reading. 1 2 3 4

27. I don't like vocabulary questions. 1 2 3 4

28. Complicated stories are no fun to read. 1 2 3 4

29. I am happy when someone recognizes my reading. 1 2 3 4

30. I feel like I make friends with people in good books. 1 2 3 4

31. My mother or father often tells me what a good job I am doing in reading. 1 2 3 4

32. Finishing every reading assignment is very important to me.
1 2 3 4

33. I like mysteries. 1 2 3 4

34. I talk to my friends about what I am reading. 1 2 3 4

35. If I am reading about an interesting topic, I sometimes lose track of time. 1 2 3 4

36. I like to get compliments for my reading. 1 2 3 4

37. Grades are a good way to see how well you are doing in reading. 1
2 3 4

38. I like to help my friends with their schoolwork in reading.
1 2 3 4

39. I read to improve my grades. 1 2 3 4

40. My mother or father asks me about my reading grade. 1 2 3 4

41. I enjoy a long, involved story or fiction book. 1 2 3 4

42. I like to tell my family about what I am reading. 1 2 3 4

43. I try to get more answers right than my friends. 1 2 3 4

44. If the project is interesting, I can read difficult material. 1 2 3 4

45. I enjoy reading books about people in different countries.
1 2 3 4

46. I read a lot of adventure stories. 1 2 3 4

47. I always try to finish my reading on time. 1 2 3 4

48. If a book is interesting, I don't care how hard it is to read.
1 2 3 4

49. I like to finish my reading before other students. 1 2 3 4

50. In comparison to my other school subjects, I am best at reading.

1 2 3 4

51. If a book is interesting, I don't care how hard it is to read.

1 2 3 4

52. I like to finish my reading before other students. 1 2 3 4

53. In comparison to my other school subjects, I am best at reading.

1 2 3 4

Appendix B
Teacher Motivation Survey

Web Master Survey
Teacher Survey on Boys Reading Achievement

1. How many years have you been teaching?
 - 0-5
 - 6-10
 - 11-15
 - 15 or more

2. How often do you think the average third grade boy reads outside of school?
 - Everyday
 - Three times a week
 - Once a week
 - Less than once a week

3. Do you think boys in your classroom struggle more with reading than girls?
 - Always
 - Most of the time
 - Seldom
 - Never

4. Do you think the parents of the boys in your class read to them at home?
 - Always
 - Most of the time
 - Seldom
 - Never

5. Do you think boys' classroom behavior impacts their reading performance?
 - Always
 - Most of the time
 - Seldom
 - Never

6. Do you read aloud to your class on a regular basis (at least 3 times per week)?
 - Always
 - Most of the time
 - Seldom
 - Never

7. Do reading grades influence your male students to do better when they receive good grades or to give up when they receive poor grades?
 - Always
 - Most of the time
 - Seldom
 - Never

8. Do you think the boys in your class put forth enough effort in reading?
 - Always
 - Most of the time
 - Seldom
 - Never

9. Do you select different reading materials based on the interest of the boys in your classroom?
 - Always
 - Most of the time
 - Seldom
 - Never

10. Do you think boys in your class are motivated or have a good attitude about reading?
 - Always
 - Most of the time
 - Seldom
 - Never

11. Do you feel that the boys in your classroom are encouraged to read by praise from the teacher?
 - Always
 - Most of the time
 - Seldom
 - Never

12. Which factor plays the largest role in male reading achievement?
 - Always
 - Most of the time
 - Seldom
 - Never

Appendix C

Principal Consent Letter

Dear Principal,

My name is Phyllis Pegram, Principal of Conover School and I am currently pursuing my doctorate from Gardner Webb University in Educational Leadership. I would like to conduct research with your third grade students and teachers regarding students' motivation and attitude about reading. The data collected as part of this study will be used in a dissertation as part of my doctorate program. To gather this data the classroom teacher will be administering a survey to the entire class. The teacher will read each question about the child's attitude and motivation toward reading. The child will then choose between four answer choices on the survey. The survey will only be administered by the teacher one time.

For purposes of the research study, all identifying information (i.e., names, and signatures) will be removed. Pictures and videos will not be used as part of this study. The information obtained from this study will be kept confidential and will only be reported in my dissertation with no specific identifying connections made to any individual child, teacher, or school. All data will be stored in a locked cabinet to which only I have access.

I would greatly appreciate your allowing me to conduct research in your school. If you have any questions, please contact Phyllis Pegram by email at phyllis_pegram@nccs.k12.nc.us , or by telephone at 704-657-0915.

Principal's Signature_____

Date_____

Appendix D
Parent/Student Consent Form

Dear Parents/Guardians,

My name is Phyllis Pegram, Principal of Conover School and I am currently pursuing my doctorate from Gardner Webb University in Educational Leadership. I will be conducting research in your child's classroom concerning third grade students' motivation and attitude about reading. The data collected as part of this study will be used in a dissertation as part of my doctorate program. To gather this data from your child, your child's teacher will be administering a survey to the entire class. The teacher will read each question about the child's attitude and motivation toward reading. The child will then choose between four answer choices on the survey. The survey will only be administered by the teacher one time.

If you choose to allow your child to participate in this research study, I would like to include your child's responses to the survey in my data analysis. For purposes of the research study, all identifying information (i.e., names, and signatures) will be removed. Pictures and videos will not be used as part of this study. The information obtained from this study will be kept confidential and will only be reported in my dissertation with no specific identifying connections made to any individual child, teacher, or school. All data will be stored in a locked cabinet to which only I have access.

Your decision whether or not to allow your child to participate will not interfere with your child's grades, progress, or development in fourth grade. Participation in this study is completely voluntary and I would greatly appreciate your assistance.

If you have any questions, please contact Phyllis Pegram by email at phyllis_pegram@nccs.k12.nc.us , or by telephone at 704-657-0915.

My child _____ has permission to take part in the survey.

Parent

Signature _____ Date _____

Appendix E

Teacher Consent Letter

Dear Teachers,

My name is Phyllis Pegram, the principal at Conover School. I am working on my doctorate at Gardner Webb University in Educational Leadership.

As part of my doctorate I am required to do a research project and dissertation. My research study will involve looking at boys' attitudes and motivation toward reading. I will be conducting research with the third grade students in your school by having students complete a motivation survey. I am asking that you as classroom teacher would be willing to read the questions to your class and administer the survey.

I would also like to interview all of the third grade teachers in your school and will be contacting you to set up a convenient time for a short interview on reading motivation. I would like to include your student responses as well as teacher interview responses in my data analysis.

For the purpose of the research study, all identifying information (i.e. names and signatures) will be removed. Pictures and videos will not be used in this study. The information obtained in this study will be kept confidential and will only be reported in my dissertation with no specific, identifying connections made to any individual child, teacher, or school.

Participation in this study is completely voluntary.

Please contact me at 704-657-0915 if you have any questions or concerns.

Please circle one: I Agree Do Not Agree to participate in this research study.

Teache'sr Name (please print): _____

Teacher's Signature: _____ Date _____