An examination of a relationship between reading attitudes and reading achievement for a

   group of sixth grade students

By

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The importance of reading proficiency is unquestioned. Although the nation has set a goal for all students to be proficient in reading, many of the nation’s students are not proficient readers. The vast majority of research examining reading proficiency and reading achievement has concentrated on the cognitive aspects of reading and the use of scientifically based reading interventions. However, there is a body of literature that suggests that reading achievement is related to attitudes toward reading. The purpose of this study was to determine the recreational and academic reading attitudes of a group of sixth-grade students and to determine if their attitudes toward reading were related to measures of their reading achievement.

This study was guided by seven research questions and utilized three research designs. Descriptive research was used to answer research questions one and two which sought to determine the recreational and academic reading attitudes of the sixth grade students participating in this study. Causal comparative research was used to answer research questions three and four which compared measures of academic and recreational reading attitudes by gender and ethnicity. Research questions five, six, and seven were
answered using correlational research to determine if measures of reading attitudes were related to the scores on the language arts portion of the MCT2.

The results of data analyzed to answer the research questions revealed that overall the sixth grade participants in this study had reading attitudes that were less than positive. The results also revealed that males had reading attitudes that were more positive than females. The results of the analysis of reading attitudes by ethnicity revealed that African American students had higher measures of positive recreational reading attitudes than Caucasian students and the students in the other ethnic group while Caucasian students had higher measures of positive academic reading attitudes than African American students and students in the other ethnic group. The only significant relationship discovered between measures of reading attitude and MCT2 scores was a very weak relationship between measures of academic reading attitudes and the language arts section of the MCT2. The study concludes with recommendations for further research.
DEDICATION

I would like to dedicate this research to my parents, Josephine Ward and the late Mervyn Ward, Sr., my grandmother, the late Susie Ward, my children and significant other, Alphonso Hayden, II, Ward Hayden, and Alphonso Hayden I, and my two brothers, Reginald Ward and Russell Ward. I would also like to dedicate this research to my uncles, aunts, nieces, nephews, cousins, friends, and anyone who impacted me throughout the eight years of completing this degree.
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CHAPTER I
INTRODUCTION

The academic achievement of the nation’s school-age children continues to be a concern of stakeholders and policy makers. This concern is reflected in the increase of accountability standards nation-wide, as evidenced by the proficiency mandates of the *No Child Left Behind Act of 2001* (USDE, 2012) and the more recent push for common educational standards across states. In 2002, President G. Bush signed into law the NCLB Act of 2001 (NCLB). According to the National Center for Educational Statistics (NCES; 2011), NCLB mandated that states not only assess their students’ academic competency annually but also mandated that by the 2014 academic year, all students would demonstrate proficiency in reading and math. However, according to the most recent results of the National Assessment of Educational Progress (NAEP), many of the nation’s students have failed to demonstrate proficiency in reading and math (NCES, 2011). Of particular interest to the current study were the students who failed to demonstrate proficiency in reading. The NAEP results indicated some 67% of fourth- and eighth-graders nation-wide participating in the assessment failed to demonstrate reading proficiency.

A review of the literature revealed that a preponderance of the research examining reading achievement focused on the efficacy of scientifically-based reading interventions to increase students’ reading achievement. However, many researchers have examined
the relationship between reading attitudes and reading achievement (Lazarus & Callahan, 2000; Martinez, Aricak, & Jewell, 2008; Mullis, Martin, Gonzalez, & Kennedy, 2003; Russ, 1989; Wigfield & Asher, 1984). Multiple researchers have suggested that not only are reading attitudes related to reading achievement, but also that reading attitudes become more negative beyond the early elementary grades. According to Alexander and Cobb (1992), developing a proficient reader means first establishing a positive attitude towards reading.

McKenna, Kear, and Ellsworth (1995) suggested that students actually have two types of reading attitudes. The first type of attitude identified by McKenna et al. (1995) was the recreational reading attitude. According to the authors, recreational reading is reading that students do in their time of leisure. Therefore, recreational reading attitudes are the attitudes students have toward using their leisure time to read. The second type of reading attitude identified by McKenna et al. (1995) was academic reading. Academic reading was defined as reading that is required to complete school work.

The present study, which consists of five chapters, investigates reading attitudes, both recreational and academic, as they relate to reading achievement. The remainder of Chapter I includes the following nine sections: Statement of the Problem, Purpose of the Study, Research Questions, Significance of the Study, Delimitations, Limitations, Theoretical Framework, Definition of Terms, and Summary. Chapter II presents a review of the literature as it pertains to reading achievement and reading attitude. Chapter III provides the methodology that was used to conduct the study. Chapter IV provides the results of data analysis that was used to answer the research questions and Chapter V discusses the findings and offers practical and research recommendations.
Statement of the Problem

In the highly competitive, globalized economy of the United States, improving student academic achievement continues to be an issue. While politicians believe that a quality education is the driving force for growth in the globalized economy, American students are finding it difficult to compete academically with students from other countries (Gurria, 2007; Peterson, Woessman, Hannushek, & Lastra-Anadon, 2011). According to the United Nations Educational, Scientific, and Cultural Organization (2005), reading proficiency is an important component of a basic education and a significant element of a quality education. Moreover, according to the National Institute for Literacy (2003), not only do deficiencies in reading relate to low academic achievement, but they also relate to low self-confidence and low academic motivation.

Many of the stakeholders, including politicians and educators, of the American educational system are alarmed because of the deficiencies in reading exhibited by American high school students. According to Act, Inc. (2006), a study conducted by the Alliance for Excellent Education in 2005, found that only 51% of high school students were equipped for collegiate reading. Additionally, the U.S. Department of Education (USDE; 2009) reported that seniors in 1992 scored higher (292 average reading scale score) on the NAEP than the seniors in 2005 (286 average reading scale score). According to NCES (2011), there are nearly six million middle and high school students who cannot read adequately. In 2008, Mississippi was ranked last in academic achievement as a result of their average ACT score being the lowest of the 50 states by the American Legislative Exchange Council’s Report Card on Education (as cited in NCES, 2011).
Despite the mandates of NCLB, many of the students in America are not proficient readers. Furthermore, while the efficacy of using scientifically-based reading interventions is not being questioned, the fact remains that, even with using scientifically-based reading interventions, many of the nation’s students still fail to read at the proficient level. Similar to the lack of reading proficiency progress reported for the nation’s high school students, measures of reading proficiency for Mississippi’s elementary and middle students do not appear to be improving. For example, according to the Mississippi Department of Education (MDE; 2010), at both the fourth and eighth grade levels, a higher percentage of Mississippi students met or exceeded the standards in 2007 than in 2010. Consequently, the problem that supports the need for the current study is that even with the use of scientifically-based reading interventions, many of Mississippi’s students are not proficient readers.

**Purpose of the Study**

In spite of the mandate of NCLB that all students would be proficient in reading and math by the 2014 academic year (USDE, 2011), in 2011 only 31% of the nation’s graduating seniors were proficient readers nationwide (Peterson et al., 2011). Although school districts throughout the nation are using scientifically-based reading interventions to address the problem, significant progress has not been made. Multiple researchers (Askov & Fishbach, 1973; Boland, 1988; Cloer & Ross, 1996) have suggested that measures of reading achievement and reading proficiency are related to students’ attitudes toward reading. Therefore, the purpose of this study was to determine the recreational and academic reading attitudes of a group of sixth grade students and to
determine if their attitudes toward reading were related to measures of their reading achievement.

**Research Questions**

To fulfill the purpose of this study, seven research questions were developed. Recreational and academic reading attitudes are operationally defined as the score on the Elementary Reading Attitude Survey (ERAS) developed by McKenna and Kear (1990). Reading achievement is operationally defined as the 2012 Mississippi Curriculum Test, Second Edition (MCT2) language arts scores. The MCT2 is a state-wide annual assessment that is aligned with the 2006 Mississippi Language Arts Framework-Revised and the 2007 Mississippi Mathematics Framework-Revised and administered to students in Grades 3 through 8. The following represents the seven research questions that were answered in this study.

1. What are the recreational reading attitude scores of a group of sixth grade students by gender and ethnicity?
2. What are the academic reading attitude scores of a group of sixth grade students by gender and ethnicity?
3. Are there differences in recreational reading attitude scores of a group of sixth grade students by gender and ethnicity?
4. Are there differences in academic reading attitude scores of a group of sixth grade students by gender and ethnicity?
5. Is there a relationship between the recreational reading attitude scores of a group of sixth grade students and their fifth-grade MCT2 language arts scores?
6. Is there a relationship between the academic reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?

7. Is there a relationship between the total reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?

**Significance of the Study**

Knowing more about the reading attitudes of students is crucial for a number of reasons, but primarily because of the lack of attention given to reading attitude as it pertains to reading achievement. The vast majority of research examining reading achievement focuses on strategies and interventions designed to improve reading achievement. Since the inception of NCLB, research has solely focused on scientifically-based interventions as a means of improving reading achievement. In fact, a review of the literature revealed that most of the research examining the relationship between reading achievement and reading attitudes was conducted prior to 2002 when NCLB was enacted. The review of the literature also revealed inconsistencies in terms of the magnitude and direction of the relationship between reading attitudes and reading achievement. Therefore, the results of this study can be used to answer questions left unanswered by past research. From a practitioner’s perspective, the results of this study will be useful in increasing the understanding of reading achievement regardless of the results. If the results indicate that there is no relationship between reading achievement and reading attitude, then educators may not want to invest much time in improving reading attitudes. However, if a strong, positive relationship is uncovered, a greater investment of resources to improve reading attitudes may be warranted. Either way, educators would have
empirical evidence that could be used to improve instructional practices. Finally, from an administrative perspective, the results of this study will be useful in planning and developing professional development opportunities for teachers. As with the significance of the study for teachers, the information provided by the results of this study can be used by administrators in their capacity as instructional leaders. To develop proficient readers, teachers must help students acquire both the skill and will to read. Guthrie and Wigfield (1997) stated that “motivation is what activates behavior” (p. 406). Therefore, students’ attitudes toward reading are essential in affecting reading performance.

**Delimitations**

This study was delimited to one grade level and one school’s students who took the fifth grade MCT2 language arts test in 2012. Delimiting this study to sixth grade students was supported by the findings of multiple researchers. For example, researchers have found that as students advance through the elementary school years, their reading attitudes decline (Barnett & Irwin, 1994; Guthrie & Greaney, 1991; Kush & Watkins, 1996; Smith, 1990; Swanson, 1985). Moreover, McKenna et al. (1995) found that students’ recreational reading attitudes declined from a fairly positive reading attitude in first grade to a comparatively uninterested attitude toward reading in sixth grade. According to Ivey and Broaddus (2001), the middle school level is where students’ attitudes toward reading begin to decline drastically. In the district participating in this study, sixth grade is the beginning of middle school, which encompasses Grades 6, 7, and 8. Although generalization of the results of this study beyond this one school and grade are not warranted, the results of this study could justify replication of the study with a broader population.
Limitations

One limitation of this study was that one of the data collection methods involved self-reported data. Self-reported data is limiting because respondents may be dishonest or offer desirable responses or answers based on how the respondents feel the researcher wants him or her to answer. Although the researcher ensured confidentiality and used neutral survey items that did not allow students to lean toward favorable or unfavorable responses, the potential still existed for participants to not be truthful. Another limitation of this study was the response rate, which was 34%. It is possible that the participating students are not representative of the sixth grade population at their school.

Theoretical Framework

Although there are several theorists associated with reading attitudes and reading achievement (Askov & Fischbach, 1973; Lipsky, 1983; Martin, 1984; Ransbury, 1973; Richards & Bear, 1986; Swanson, 1982; Walberg & Tsai, 1985; Wallbrown, Brown, & Engin, 1978; Wallbrown, Vance, & Prichard, 1979), the theorists who provide the foundation for this research are McKenna and Kear (1990), McKenna et al. (1995), and Diamond and Onwuegbuzie (2001).

McKenna and Kear (1990) and McKenna et al. (1995) investigated significant issues related to children’s reading attitudes. Through their work, they discovered that there was a statistically significant difference between the recreational and academic reading attitudes of low-achieving readers and high-achieving readers. Consistent with McKenna and Kear (1990) and McKenna et al. (1995), Diamond and Onwuegbuzie (2001) found that reading attitudes were a predictor of reading achievement as a function of grade, gender, and ethnicity.
Definition of Terms

The following is a list of terms that were used throughout this study to describe several concepts:

*Academic Reading* refers to school-related reading (Krashen, 2004; Wu & Samuels, 2004). The operational definition for academic reading for this study is the score on the ERAS academic reading subscale.

*Reading Achievement* measures how well students' actual achievement matches the achievement desired of them in reading as assessed by National Assessment of Educational Progress (NAEP; 2007). The operational definition of reading achievement for this study is defined by the MCT2.

*Reading Attitude* refers to feelings related to reading that causes an individual to approach or avoid a reading situation (Tunnell, Calder, Justen, & Phaup, 1991). The operational definition of reading attitude for this study is defined by the ERAS.

*Recreational Reading* refers to free voluntary reading (Krashen, 2004; Wu & Samuels, 2004). The operational definition for recreational reading for this study is the score on the ERAS recreational reading subscale.

Summary

For some time now, the American educational system has been searching for solutions to combat reading failure. The severity of this problem and the possible outcomes of reading failure for our nation warrant further research and a curriculum change designed to improve reading achievement and overall levels of achievement. In spite of the push to use scientifically-based research interventions designed to significantly improve reading achievement, many of our nation’s students are not
proficient readers. According to McKenna et al. (1995), analyzing students’ reading attitudes is one method for improving reading achievement and overall levels of achievement. While some researchers suggest that reading achievement will increase with the use of scientifically-based strategies (Barnett & Irwin, 1994), others have suggested that more attention should be placed on reading attitudes (McKenna & Kear, 1990). However, the results of studies examining the relationship between reading achievement and reading attitudes have been inconsistent. Therefore, the purpose of this study was to determine the recreational and academic reading attitudes of a group of sixth grade students and to determine if their attitudes toward reading were related to measures of their reading achievement.
CHAPTER II
LITERATURE REVIEW

Few people would argue with the idea that attitudes influence behavior and that reading is a behavior. According to Roettger, Szymczuk, and Millard (2001), children who have a positive attitude toward reading will read more often than children with less positive attitudes. Developing proficient readers with positive attitudes continues to be a serious concern in the United States. Despite federally enacted educational mandates, the nation’s students continue to struggle with reading proficiency. In 2011, 67% of the nation’s fourth-graders and eighth-graders failed to demonstrate reading proficiency (NCES, 2011). Not only are poor reading skills affecting elementary and middle school students, they have also negatively impacted high school students. According to Peterson et al. (2011), only 31% of the nation’s graduating seniors were proficient in reading.

Like the nation’s students, Mississippi’s students are also struggling with reading. In 2011, Mississippi’s fourth-graders were outranked by 44 other states on the reading portion of the NAEP (2011). The average fourth grade reading score in Mississippi was 209 while the nation’s average for fourth-grade students was significantly higher at 220. Mississippi’s students ranking at the 25th percentile show a 48 point performance gap between students ranking at the 75th percentile. The NAEP results also indicated that only 22% of Mississippi’s students scored at or above the NAEP proficient level.
According to Ajzen (1989), researchers are refraining from focusing on affective factors and are focusing more on cognitive factors. The focus on cognitive factors is because: (a) it is believed that poor reading attitudes are not the cause, but the consequence that negatively impacts an individual’s efforts to learn new approaches for successful reading; and (b) the absence of experimental studies examining reading behavior and reading attitude. However, there appears to be a strong link between the constructs of attitudes and other variables associated with reading and reading achievement. Cognitive and affective factors are significant in improving reading proficiency.

The purpose of Chapter II is to provide a review of literature related to affective constructs of reading achievement. Included in this review are defining reading attitudes, developing reading attitudes, measuring reading attitudes, and empirical evidence related to reading attitudes and reading achievement. This chapter will conclude with a brief summary of the literature reviewed.

**Defining Reading Attitudes**

Due to the difficulty in understanding the inconsistent research on reading attitudes, research on defining reading attitudes is also inconsistent and difficult to understand. As with many constructs, multiple definitions of the construct of reading attitude exist. As reported by Mathewson (1994), the definition researchers use to define attitudes in general depends on the personal perspective of the researcher conducting the study. Mathewson also reported that research conducted by Beck (1983, as cited in Mathewson, 1994) used a definition of attitude that focused on an evaluation aspect. Beck (1983) defined attitude as “a positive or negative evaluation of some person, object,
or thing” (as cited in Mathewson, 1994, p. 302). Other researchers have focused their definitions of attitudes on feelings and dispositions. According to Wood et al. (2007), attitudes are valuations of persons, objects, situations, or issues that range from positive to negative, and attitudes can be cognitive attitudes, emotional attitudes, or behavioral attitudes. Mathewson (1994) and McKenna et al. (1995) simply define reading attitudes as a reader’s affect toward reading. Additionally, as a part of their definition for reading attitude, they distinguished between two types of reading attitudes: attitudes toward recreational reading and attitudes toward academic reading. Consequently, while each of the definitions provided for attitude contributes to our understanding of attitudes, they all fail to provide operational definitions that would allow an examination of the relationship between reading attitudes and reading achievement. Therefore, the varying definitions of attitude have contributed to researchers focusing less on affective variables of reading and more on cognitive variables. However, the correlation is significant and has been analyzed across a variety of settings (Petscher, 2010).

In trying to explain reading attitudes or attitudes in general, some researchers have focused on the relationship between attitudes and other constructs, such as motivation, self-concept, and beliefs, while other researchers have focused their attention on explaining how attitudes are developed. According to Mathewson (1994), when defining attitude, one must consider the relationships between attitudes and the constructs of motivation, interests, beliefs, as well as how processes operate during the act of reading. While Mathewson reported that attitudes and motivation are related, Petscher (2010) and Ghaith and Bouzeineddine (2003) explained the relationship in terms of attitudes affecting motivation. For these authors, a person’s attitude toward an activity
determined their level of motivation. In a similar line of research, multiple researchers (Chen, Stevenson, Hayward, & Burgess, 1995; Graham, 1994; Stevenson, Chen, & Uttal, 1990; Thernstrom & Thernstrom, 2003) have gathered empirical data to suggest that beliefs lead to motivation and according to McKenna et al. (1995), experiences lead to beliefs. Still, other researchers have moved beyond defining reading attitude and relating reading attitudes to other constructs and concentrated on understanding and explaining how reading attitudes are developed. According to Mihandoost, Elias, Sharifah, and Mahmud (2011), motivation is essential for reading engagement because motivation activates and maintains students’ engagement throughout the reading process. The higher achievements and higher standardized reading test scores of motivated readers can be attributed to the greater amount of time they spend reading in comparison to their unmotivated peers (Mihandoost et al., 2011). Therefore, as suggested by Mihandoost et al. (2011), motivation increases engagement. So the question then becomes, what motivates students to read? Petscher (2010) stated that students’ negative reading attitudes affect students’ motivation and attention, which are significant for achievement success. On the other hand, according to Robinson and Weintraub (1973), students’ positive reading attitudes support the pursuit of reading, higher levels of motivation, and a greater sense of self-esteem. Consequently, not only is there a lack of consistency regarding the definitions of attitudes but there is also disagreement among scholars regarding the relationship between attitudes and other important affective constructs.

**Developing Reading Attitudes**

The processes by which reading attitudes are developed have been studied by multiple researchers; therefore, there are numerous explanations as to how reading
attitudes are developed. According to Fishbein and Ajzen (1975), attitude development is nothing more than learning to respond consistently to a phenomenon. Attitudes, according to Cothern and Collins (1992), are the lasting results of various experiences and beliefs that become “generalized and incorporated into a broader conceptual network representing the individual’s understanding of cultural expectations and consequences regarding behavior” (p.86). Moreover, according to Alexander and Filler (1976) and Cothern and Collins (1992), self-concept, gender, socioeconomic status, parent and teacher attitudes, home and school environments, interests, achievement, and other experiences influence the development of positive and negative attitudes.

Positive attitude development is significant in teaching reading (Cothern & Collins, 1992). The previously mentioned factors, self-concept, gender, socioeconomic status, parent and teacher attitudes, home and school environments, interests, achievement, and other experiences, along with understanding reading development contribute to determining how these factors combine to account for both successes and difficulties in reading (Conlon, Zimmer-Gembeck, Creed, & Tucker, 2006). Research on reading attitude development has focused on classroom activities and instructional practices (Barnett & Irwin, 1994), time (Cloer & Pearman, 1992), and home literacy practices (Kubis, 1994; Speigel, 1994).

Barnett and Irwin (1994) identified a need for classroom activities and instructional practices that positively affect students’ reading attitudes and according to Payne and Manning (1992) teachers can positively influence students’ reading attitudes through interventions. Saracho and Dayton (1989) agreed that instruction contributes to the overall development of attitude. Cloer and Pearman (1992) have related students’
reading attitude development with time. More specifically, they investigated and compared students’ recreational and academic reading attitudes with classroom behaviors and the reading attitudes of their teachers. In addition to finding more positive reading attitudes among elementary students than those of middle school students, they also found that students’ recreational and academic reading attitudes were also affected by the amount of time the teacher spent instructing from the basal. The time the teacher spent instructing from the basal in Grades 4 through 6 and teachers’ leisure reading is significant because Cloer and Pearman (1992) reported that they accounted for 62.4% of the variance in students’ academic reading attitudes. It was also reported that teachers’ reading attitudes were related to students’ reading attitudes.

Kubis (1994) compared students with positive reading attitudes to students with negative reading attitudes. Kubis (1994) found that students with positive reading attitudes, attitudes were developed as a result of an event or person. The author identified being read to as a child and having a book collection as explanations for developing positive reading attitudes. Other findings reported that families of students with positive reading attitudes received magazines starting at a younger age for their children than a family of students with negative reading attitudes. The families also visited the public library and used library cards. Speigel (1994) found that the development of students’ reading attitude was related to their home literacy practices and the reading attitudes of significant others, whether they are parents, grandparents or peers. According to Speigel (1994), parents’ interaction with books, newspapers, pencils, paper, letters, junk mail, and reading to their children all affect the development of students’ positive reading attitudes.
Similar to the inconsistencies reported in the literature regarding the definitions of reading attitude and the relationship between reading attitude and other variables, the notion of how reading attitudes are developed is also debatable. However, there is an agreement that children develop their attitudes towards reading in very complex ways (McKenna et al., 1995). The ambiguity and complexity associated with defining reading attitude and explaining the development of reading attitudes may explain why much of the research on reading achievement focuses on cognitive aspects of reading rather than the affective aspects. However, that does not negate the need to better understand the relationship between reading attitudes and reading achievement.

**Measuring Reading Attitudes**

Since the early 1960s, researchers have tried to explain and understand the relationship between attitudes and behaviors (Liska, 1984). According to Liska, one of the first and most prominent models developed to explain the attitude-behavior relationship was developed by Fishbein and Ajzen in 1975. However, as Liska (1984) suggested, the Fishbein and Ajzen model was theoretically flawed and that a much more complex model was needed. Building on the work of Fishbein and Ajzen, Mathewson (1994) developed and subsequently revised a more complex model of reading attitude and its influence on learning to read. In his latest model, Mathewson argues that qualitative, rather than quantitative, methods should be employed to facilitate a better understanding of the attitude-reading relationship. According to Mathewson, “quantitative research ignores powerful variables moderating the attitude-reading relationship, neglects to measure all aspects of attitude, and fails to define attitude objects adequately” (p. 1150). However, according to McKenna et al. (1995), although
Mathewson’s model made important contributions to the understanding of reading attitudes, it offered little information on reading attitude development and its relationship to reading over time.

The McKenna model of reading attitude was developed by modifying the best of the models developed by Liska (1984), Mathewson (1994), and Ruddell and Speaker (1985) (McKenna, 1994). The new model developed by McKenna consisted of three factors that influenced changes in reading attitudes. The factors identified in the McKenna model (McKenna et al., 1995) were:

(a) beliefs about the outcomes of reading in light of the judged desirability of those outcomes, (b) beliefs about the expectations of others in light of one’s motivation to conform to those expectations, and (c) the outcomes of specific incidents of reading. (p. 938)

Consequently, the McKenna model predicts that as students mature and gain access to more activities, their interests and consequently their attitude toward reading declines.

**Relationship between Reading and Attitudes**

Changes in the methods that measure reading attitudes (Mathewson, 1994; McKenna, 1994) have defined attitude as representative of achievement instead of a consequence. According to Fazio, Zanna, and Cooper (1978), more could be known about the varying correlation between attitude and behavior if we discover “under what conditions do what kinds of attitudes held by what kinds of individuals predict what kinds of behaviors?” as asked by Petscher (2010, p. 335), Consequently, the unknowns may be one of the reasons researchers avoid examining the affective aspects of reading. More
specifically, Petscher (2010), stated that “although research has examined the role of attitudes in predicting reading behaviours, inconsistent replication, poor predictive models and the difficulty of separating attitudes from aspects of motivation and self-beliefs have left many researchers to focus on more reliable predictors of reading behaviors, namely cognitive (e.g. comprehension) and conative (e.g. intentions) components” (p. 335).

Although many studies have consistently reported relationships between reading attitude and reading achievement (McKenna et al., 1995; Wigfield & Asher, 1984), the direction and the magnitude of those relationships have not been consistent. For example, while Wigfield and Asher (1984) reported that better readers have more positive attitudes toward reading than poor readers. Mullis and colleagues (2003) found that even proficient readers report negative reading attitudes, and Russ (1989) found poor readers to have positive reading attitudes. Moreover, Kush, Watkins, and Brookhart (2005), in a longitudinal study, failed to find a significant relationship between measures of reading attitude and reading achievement among second and third grade students. However, Kush et al. (2005) did find that both second and third grade reading attitude and reading achievement were related to seventh grade reading achievement.

One of the earliest studies examining reading attitudes explored potential relationships between attitudes, sex, and achievement. In the early 1970s, Askov and Fischbach (1973) examined the relationship between reading attitude and achievement, gender, and grade level. The following three research questions guided their study: “(a) Is attitude toward recreational reading related to achievement, sex, and grade placement? (b) Does attitude toward recreational reading change over the summer vacation? And (c)
Is change in attitude, if any, related to achievement, sex, and grade placement?” (p. 2). To answer their research questions, the Primary Pupil Reading Attitude Inventory was administered to students in grades one and three in the spring and the fall of the next school year. The word reading and paragraph meaning scores of the Stanford Achievement Test were used as measures of achievement. The authors used analysis of covariance and simple linear regression to analyze data to answer each of their research questions. The results of their analysis indicated that females in grades one and three had significantly higher recreational attitude mean scores than males in those same grades; the authors did not find a significant effect for grade placement. The recreational attitude mean score for first grade students was not significantly different than the recreational attitude mean score for third graders.

When the relationship between recreational attitude mean scores and achievement were examined, the authors found a significant relationship between attitude mean scores and paragraph meaning mean scores, but not between attitude mean scores and word reading mean scores. The authors found that as achievement in paragraph meaning increased, so did measures of recreational attitude mean scores. Data analyzed to answer the third research question indicated that recreational reading attitude scores across all subjects (sex and grade placement) did not change significantly over the summer break. Consequently, the major findings of the study by Askov and Fischbach (1973) were that recreational reading attitudes are positively related to reading comprehension. For these authors, findings suggested that in order to help children have more favorable attitudes toward reading our efforts should be directed toward improving the reading skills of children. However, this line of reasoning seems to be somewhat distorted in that the
ultimate goal of schools today is to increase reading achievement for the sake of
improving achievement across all subject areas. For many researchers, (Baker &
Wigfield, 1999; Bettelheim & Zelan, 1981; Mathewson, 1994; McKenna & Kear, 1995;
McKenna et al., 1995) one means of improving reading achievement is to improve
reading attitudes, not the other way around as Askov and Fischbach (1973) suggested.
Nevertheless, the findings reported by the authors are important to the current study
because they provide evidence that suggests important relationships among the variables
in this study.

In a similar line of research, Martinez, Aricak, and Jewell (2008) investigated the
possibility of a four-month temporal interaction between reading attitude and reading
achievement. The authors hypothesized that (a) females would have more positive
attitudes toward reading, (b) good readers would have more positive attitudes toward
reading, and (c) over a four-month period, measures of reading attitude and reading
achievement in year 1 would demonstrate a causal relation to reading achievement in
year 2.

The participants for their study consisted of 76 fourth grade students attending a
large school in the Midwest. The population of the school was 99% Caucasian and 31%
of the students qualified for free or reduced lunches. The researcher used the ERAS to
measure the participants’ attitudes toward reading and a reading Curriculum-Based
Measurement (R-CBM) to measure their reading achievement in the fourth grade.
Reading achievement in the fifth grade was measured by the state-mandated Indiana
Statewide Testing for Educational Progress-Plus (ISTEP+) assessment. The ERAS were
administered during the last two weeks for the participants’ fourth grade school year and archived R-CBM and ISTEP+ scores were gathered from students’ records.

The authors used a 3 (reading attitudes [recreational, academic, and total]) x 2 (gender) x 3 (reading level [did not pass, pass, and pass + 1]) factorial analysis of variance (ANOVA) to determine differences in reading attitude by gender and reading level. The results of their analysis indicated that there was a significant difference in reading attitudes between males and females. Females demonstrated more positive reading attitudes than males on the recreational, academic, and total ERAS scales; however, the authors failed to detect any significant differences by reading level. Students who passed the ISTEP+ and those who did not pass the ISTEP+ both reported positive attitudes towards reading on each scale (recreational, academic, and total) of the ERAS. The authors also failed to detect any interaction effects between gender and reading level on reading attitude.

Path analysis was used to determine whether there was a temporal interactive effect among the variables. The results of this analysis indicated that scores on the ERAS and the R-CBM predicted the scores or the ISTEP+, administered in the fifth grade. According to Martinez et al. (2008), reading attitude in the fourth grade accounted for 22% of the variances observed in fifth-grade ISTEP+ scores, which supported their temporal interactive hypothesis. Consequently, as the authors concluded, affective domains should not be ignored in the quest for increasing academic achievement in reading. The authors also suggest that the study be replicated with a more diverse group of students because of the lack of ethnic diversity in the study (99% Caucasian).
Roettger et al. (2001) examined the relationship between reading attitude and reading achievement for children in grades three through six in the state of Iowa. The sample included 171 third-graders, 159 fourth-graders, 162 fifth-graders, and 206 sixth-graders for a total sample size of 697 students. The sample consisted of nearly as many females (313) as males (384).

The results of the study conducted by Roettger et al. (2001) indicated that there were significant differences between measures of reading attitude for high-achieving students and measures of reading attitude for low-achieving students. However, the authors found very low correlation coefficients for the relationships between reading attitudes and scores on the vocabulary and comprehension subtest of the Iowa Test of Basic Skills. According to the authors, this finding indicates that measures of reading attitude cannot be used as reliable predictors of academic achievement in reading.

The findings and interpretations of Roettger et al. (2001) are considered with caution because of the lack of clarity in the report. The authors failed to explain and operationally define many of their variables. Much of the information recorded in both the text and tables of the report is very ambiguous and confusing. Nevertheless, this work is significant for the current study because it is one of few studies which used a state assessment as one of the variables in assessing the relationship between reading attitude and reading achievement. The flaws presented in the report, however, justify the need to replicate the study.

Similar to the results of other studies examining reading attitude, Anderson, Tollefson, and Gilbert (1985) found that reading attitudes were related to gender and grade level; however, the sample for their study was unique in that their sample consisted
of students in Grades 1 through 12 who had been identified as intellectually gifted. Each of the 276 participants in the study had scored at least two standard deviations above the mean on a standardized, individually administered ability test. The purpose of their study was to compare gifted students’ attitudes toward reading and their preference for reading instead of other activities.

Anderson et al. (1985) developed a Likert scale, 11-item questionnaire designed to measure students’ attitudes toward reading assignments, reading workbooks, and preference for reading as a leisure activity. The same questionnaire was used with students in Grades 1 through 12; however, the questionnaire was read to the students in the primary grades. In addition to the questionnaire data measuring attitude, self-report data was gathered to determine the number of books read per month and the reasons for reading the books. The data gathered from the questionnaire were analyzed using the ANOVA statistical procedure with sex as one of the independent variables and nested grade level as another independent variable. The grades were grouped as primary (Grades 1-4), intermediate (Grades 5 and 6), junior high (Grades 7-9), and senior high (Grades 10-12).

Each of the 11 items on the questionnaire was analyzed individually. For the independent variable of sex, the authors found six significant differences between measures of reading attitude for females and males. Females were more likely to read for fun and indicated that reading was one of their favorite activities, reading a book was better than watching a movie about the book, and their family valued reading as a leisure time activity. Males were more likely to indicate that teachers assigned too much to read and that teachers should let students choose their own reading material. Clearly, based on
the results reported in the six areas, females’ attitudes toward reading in general were more positive than the attitudes of males. The authors also found that primary students had more favorable attitudes toward reading than all other grade levels (intermediate, junior high, and senior high). The results of the Anderson et al. (1985) study found that although the overall attitude score mean of the entire sample suggested their attitudes toward reading were positive, differences in measures of reading attitudes were still observed between males and females and between the different grade levels. Moreover, their findings are consistent with other researchers with more heterogeneous samples.

The most referred study exploring the relationship between reading attitude and reading achievement to date is the study conducted by McKenna et al. (1995). McKenna et al. (1995) examined the developmental trends of recreational and academic reading attitudes and how they were related to each other, gender, and ethnicity. The authors also examined the effects of using basal readers on the reading attitude of students in the elementary grades. According to the authors, a nationally representative sample of 18,185 children in Grades 1 through 6 participated in the study.

To determine trends and relationships, McKenna et al. (1995) gathered measures of participating student’s reading attitudes and reading ability. Reading attitudes were measured using the ERAS. The ERAS is a Likert Scale instrument comprised of two 10-item scales that assess students’ attitudes toward recreational reading and academic reading. Measures of reading ability were more subjective than the measures of attitude. Reading ability was assessed by asking the teachers of participating students to rate the overall reading ability of the students as either above average, average, or below average. According to the authors, the method of assessing reading ability was preferable over
standardized measures of reading achievement because it provided a better indicator of a student’s ability over time. However, they did acknowledge that the subjective judgments of the teachers resulted in errors of measurement that could not be determined.

The ERAS was administered by the participating students’ teachers in group settings in January of 1989 and mailed to the researchers along with their perceptions of the individual students’ reading ability, ethnicity, and gender (McKenna et al., 1995). The teachers also supplied information to describe the degree to which their instruction relied on basal readers. To assess the developmental trends of reading attitudes, both recreational and academic, the authors conducted two one-way ANOVAs. For both recreational attitude and academic attitude, the mean scores on the ERAS declined each year from first grade through sixth grade. For academic attitude the decrease in mean ERAS score was significant between each successive grade level. When recreational reading attitudes were analyzed, the authors found a similar trend with the exception of the decrease in scores from second grade to third grade. While the ERAS’ recreational mean scores in the third grade were lower than they were in the second grade, the difference was not statistically significant.

McKenna et al. (1995) used a series of factorial designs to determine the relationship between reading attitude and ability by grade level (3 x 6) and the relationship between reading attitude and gender by grade level (2 x 6) for both recreational and academic reading attitudes. The results of the analysis of recreational attitude scores by ability and grade level revealed a main effect for ability, a main effect for grade, and an interaction effect between ability and grade level. High ability readers had higher recreational ERAS scores than average and low ability readers, and average
ability readers had higher ERAS scores than low ability readers. When academic ERAS scores were analyzed, the authors observed main effects for ability and grade level; however, the authors did not find a significant interaction effect. The differences observed were consistent across grade levels. The authors also found that females had significantly higher measures of recreational and academic reading attitudes than males at all grade levels.

The findings of the McKenna et al. (1995) study are significant in that they suggest that (a) reading attitudes become less positive over time and (b) reading attitudes are related to reading ability. Another implication also drawn from this study is that according to McKenna et al. (1995), the relationship between ability and attitude becomes stronger over time.

In the review of the literature, only two studies were located that examined the relationship between ethnicity and reading attitudes. Like most of the other research on reading attitude, these studies were conducted at least 10 years ago. The most recent study identified was conducted by Diamond and Onwuegbuzie (2001). One of the purposes of their study was to examine the relationships between reading attitudes and several demographic variables, one of which was ethnicity. The participants of their study were 1,968 regular education students enrolled in Grades 1-5 at six schools located in an inner city school district in Georgia. The ethnic composition of the sample was 77% African American and 23% Caucasian. The ERAS, which yields three scores (recreational, academic, and total) was used to measure the reading attitude of the participants. The authors used a 2 (gender) x 2 (ethnicity) x 2 (socioeconomic status [SES]) x 5 (grade level) factorial ANOVA to examine attitudes toward reading as they
related to gender, ethnicity, socioeconomic status and grade level. The results of this analysis indicated that there was a main effect for gender and grade level and an interaction effect for SES and ethnicity. Similar to the findings reported by McKenna et al. (1995), females had a more positive attitude (m = 65.59) toward reading than males (m = 60.26); however, the grade level effects were less consistent. The authors found a slight increase in measure of reading attitudes from first to second grade followed by a slight decrease in measures of reading attitude from second to third grade. From the third grade to the fourth grade, the authors found a drastic decrease in measures of reading attitude. From fourth to fifth grade, only a slight decrease was observed, but the decrease was only a slight decrease. The interaction effect between SES and ethnicity indicated that African American, high SES students, had more positive attitudes toward reading than did low SES African American students while no differences were observed between high and low SES Caucasian students. This finding suggests that the effect of ethnicity on reading attitudes is a function of SES.

In addition to the previously mentioned results, Diamond and Onwuegbuzie (2001) found a small significantly significant relationship between reading attitudes and achievement. However, as noted by the authors, the relationships were more pronounced in the second and fourth grades than they were in the third and fifth grades. This finding suggests that the effects of reading attitudes may be more related to different grades and calls into question prior research that reports the overall significance of declines in reading attitude measures as children progress through the grades. Although reading attitudes decline over the years, the relationship between their attitude and their achievement is less consistent.
The only other study identified that examined the relationship between ethnicity and reading attitudes was conducted by McKenna et al. (1995). McKenna et al. (1995) found that ethnicity was unrelated to the general decline in reading attitudes from the first through sixth grade; however, on both of the measures of reading attitude (recreational and academic) African American students had less positive attitudes than Caucasian students. The authors did detect a small ethnicity effect in reading attitudes of Caucasian students, which consistently declined from first grade to sixth grade while the attitudes of African Americans stabilized between the fifth and sixth grade.

**Summary of Literature Review**

Even though the relationship between reading attitude and reading achievement has been studied over the last 30 years, many different definitions of the constructs of reading attitude exist because researchers often depend on their personal perspectives to define attitudes when conducting a study (Mathewson, 1994). Although the attitudinal definitions contribute to our understanding of attitudes, they fail to provide an operational definition that would permit an investigation of the relationship between reading attitudes and reading achievement. Similar to the inconsistencies reported in the literature regarding the definitions of reading attitude and the relationship between reading attitude and other variables, the notion of how reading attitudes are developed is also debatable (McKenna et al., 1995).

Much of the research associated with defining reading attitude and explaining the development of reading attitudes may be an explanation of why much of the research on reading achievement focuses on cognitive aspects of reading rather than the affective aspects. However, that does not negate the need to better understand the relationship...
between reading attitudes and reading achievement. Researchers have tried to explain and understand the relationship between attitudes and behaviors since the early 1960’s (Liska, 1984).

The McKenna model of reading attitude was developed by modifying the best of the models developed by Liska (1984), Mathewson (1994), and Ruddell and Speaker (1985) (McKenna, 1994). Although many studies have reported relationships between reading attitude and reading achievement, the direction and the magnitude of those relationships have not been consistent.
CHAPTER III

METHODOLOGY

The purpose of this study was to determine the recreational and academic reading attitudes of a group of sixth grade students and to determine if their attitudes toward reading were related to measures of their reading achievement. To fulfill the purpose of this study, the following research questions were answered.

1. What are the recreational reading attitude scores of a group of sixth grade students by gender and ethnicity?

2. What are the academic reading attitude scores of a group of sixth grade students by gender and ethnicity?

3. Are there differences in recreational reading attitude scores of a group of sixth grade students by gender and ethnicity?

4. Are there differences in academic reading attitude scores of a group of sixth grade students by gender and ethnicity?

5. Is there a relationship between the recreational reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?

6. Is there a relationship between the academic reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?
7. Is there a relationship between the total reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?

This chapter presents the methodology that was used to conduct the study. The following sections are included in this chapter: research design, participants, instrumentation, procedure, and methods of data analysis.

**Research Design**

This study utilized three research designs. The first design, descriptive, was used to determine the reading attitudes (i.e., recreational and academic) of the participants. According to Gay, Mills, and Airasian (2006), descriptive research is used to determine the current status of the subjects of a study. The first and second research questions of this study were answered using the descriptive methodology. Both questions simply sought to determine the recreational and academic reading attitudes of participating students.

The second research design utilized in this study was the causal comparative research design. Causal comparative research is used to determine differences in measures of a dependent variable that are related to different levels of an independent variable (Gay et al., 2006). While causal comparative designs may be used in an attempt to identify cause and effect relationships, the design is not robust enough to do so because of the researcher’s inability to manipulate the independent variable. For this study, gender and ethnicity represented the independent variables for questions three and four. Consequently, it is impossible for the researcher to manipulate those variables. However, the causal comparative design permitted the comparison of measures of the dependent
variable levels (i.e., recreational and academic attitudes) for participants representing different levels of the independent variables.

The final research design used in this study was a correlational research design. Correlational designs are used to determine if and to what extent two or more quantitative variables are related (Gay et al., 2006). The degree of relationship between or among variables is expressed as a correlation coefficient ranging from -1 to +1. The closer the coefficient is to the absolute value of 1, the stronger the relationship. The positive and negative sign associated with the coefficient explains whether the relationship is directly related or inversely related. Direct relationships indicate that as measures of one variable increases, measures of the other variable increases as well. On the other hand, inverse relationships indicated that as measures of one variable increases, measures of the other variable decreases. The fifth, sixth, and seventh research questions sought to determine if, and to what extent, reading attitudes are related to reading achievement. Consequently, to answer these last research questions, correlational research was most appropriate.

**Participants**

The participants for this study were sixth grade students who completed the fifth grade MCT2 language arts assessment in the 2011-2012 academic school year. The sixth grade students who participated in this study attended the same middle school, which includes Grades 6, 7, and 8, in a rural school district in east central Mississippi. The total sixth grade population of this school was 358. Of this total, 68% were African American, 27% were Caucasian, and the remaining 4% were either, Asian, Native American, or Hispanic. The gender composition of the sixth grade population was 51% female and 49% male. The number of the students submitting consent forms to participate in the
study was 119, which represents a 34% participation rate. The ethnic composition of the participating students was 64.7% African American, 30.3% Caucasian, and 5% other. The gender composition of participants was 55.5% female and 44.5% male. In terms of gender and ethnicity, the composition of the sample was very similar to composition of the total population of sixth-graders at this school (see Table 1).

Table 1

*Gender and Ethnicity of Population and Sample*

<table>
<thead>
<tr>
<th>Group</th>
<th>Gender</th>
<th>Frequency (%)</th>
<th>Ethnicity</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Male</td>
<td>176 (49%)</td>
<td>African American</td>
<td>240 (66.8%)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>183 (51%)</td>
<td>Other</td>
<td>24 (.07%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Caucasian</td>
<td>95 (26.4%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>359 (100.0%)</td>
</tr>
<tr>
<td>Sample</td>
<td>Male</td>
<td>53 (45%)</td>
<td>African American</td>
<td>77 (64.7%)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>66 (55%)</td>
<td>Other</td>
<td>6 (5.0%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Caucasian</td>
<td>36 (30.3%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>119 (100.0%)</td>
</tr>
</tbody>
</table>

Examination of MCT2 language arts scores for the population and sample revealed that the average MCT2 language arts score for the sample corresponded to the proficient range while the average score for the population corresponded to the basic range. In which case, on average, the sample had higher measures of reading achievement
as measured by the language arts portion of the MCT2 than the total school population.

The performance descriptors and range of scores associated with proficiency levels for
the sixth-grade language arts portion of the MCT2 are listed in Table 2.

Table 2

Performance Level Descriptors and Score Ranges for Sixth Grade Language Arts MCT2

<table>
<thead>
<tr>
<th>Proficiency Level</th>
<th>Scale Score Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>Students scoring advanced perform beyond the requirements to be successful in 6th grade language arts. The advanced scores for grade 6 language arts range from 166 and above.</td>
</tr>
<tr>
<td>Proficient</td>
<td>Students scoring proficient demonstrate solid academic performance in 6th grade language arts. The proficient scores for grade 6 language arts range from 150-166.</td>
</tr>
<tr>
<td>Basic</td>
<td>Students scoring basic demonstrate partial mastery in 6th grade language arts. The basic scores for grade 6 language arts range from 137-149.</td>
</tr>
<tr>
<td>Minimal</td>
<td>Students scoring minimal inconsistently demonstrate the knowledge or skills for mastery in 6th grade language arts. The minimal scores for grade 6 language arts range from 136 and below.</td>
</tr>
</tbody>
</table>

Instrumentation

Two instruments were used to gather data for this study. The 2011-2012 MCT2 language arts scores were used in this study to gather reading achievement data. The ERAS (McKenna & Kear, 1990) was used to gather measures of students’ reading attitudes. The following two sections provide specific information regarding the two instruments that were used in this study.
Mississippi Curriculum Test, 2nd Edition (MCT2)

The MCT2 is a state-wide annual assessment that is aligned with the 2006 Mississippi Language Arts Framework-Revised and the 2007 Mississippi Mathematics Framework-Revised. The MCT2 consists of criterion-referenced language arts (reading and writing), science and mathematics assessments. The assessments are administered to students in Grades 3 through 8, including special education students whose Individual Education Plans (IEPs) specify instructional goals that are aligned with the 2006 and 2007 revised frameworks.

The sixth-grade reading portion of the language arts assessment section of the MCT2 was used in this study. Two people (test administrator and test proctor) administer the untimed language arts section of the MCT2 to the students. The language arts section of the MCT2 consists of reading and writing and is administered over a two-day period. The language arts section of the MCT2 is made up of 70 multiple-choice questions that vary according to depth of knowledge and benchmarks. The reading portion, administered on the first day of testing, and the writing administered during the second day of testing, both have 35 questions.

The MCT2 test questions vary in difficulty and are aligned with content, skills, and processes set forth by Mississippi’s academic content standards as specified in the state curriculum frameworks and by the academic performance level descriptors. The frameworks are arranged by grade level competencies which are the mandatory learning standards for all students. According to MDE (2011):

The Language Arts MCT2 for Grades 3–8 measures a student’s knowledge of grade-level curriculum as specified in the 2006 Mississippi Language Arts
Curriculum Framework—Revised. Student mastery of grade-level curriculum is measured based upon the following competencies: (1) Vocabulary: The student will use word recognition and vocabulary (word meaning) skills to communicate. (2) Reading: The student will apply strategies and skills to comprehend, respond to, interpret, or evaluate a variety of texts of increasing length, difficulty, and complexity. (3) Writing: The student will express, communicate, evaluate, or exchange ideas effectively. (4) Grammar: The student will apply Standard English to communicate. (p. 2)

There are various forms of the MCT2 that can be administered. However, the number of testing items on each form remains the same. To account for the reliability and validity of the MCT2, multiple measures were utilized (MDE, 2010). However, regardless of the test form, the assessment results are reported in four distinctive performance based levels (MDE, 2011). Table 3 displays the language arts portion of the MCT2 descriptive measures for the population and sample.
Table 3

*MCT2 Language Arts Scores for Population and Sample*

<table>
<thead>
<tr>
<th>Group</th>
<th>Number Tested</th>
<th>Mean Scale Score</th>
<th>% Minimal</th>
<th>% Basic</th>
<th>% Proficient</th>
<th>% Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>346</td>
<td>148.9</td>
<td>17.1</td>
<td>33.5</td>
<td>34.1</td>
<td>15.3</td>
</tr>
<tr>
<td>Sample</td>
<td>119</td>
<td>151.30</td>
<td>11.8</td>
<td>33.6</td>
<td>30.3</td>
<td>24.4</td>
</tr>
</tbody>
</table>

**Elementary Reading Attitude Survey (ERAS)**

The ERAS, developed by McKenna and Kear (1990), was designed to measure the reading attitudes of students in Grades 1 through 6. The 20-item survey provides three measures of a student’s reading attitude. Items 1-10 measure a student’s recreational reading attitude. Recreational reading is defined as leisure time reading attitudes. Items 11-20 measure a student’s academic reading attitude. Academic reading is reading in a school atmosphere and reading of school materials. The final measure of reading attitude provided by the ERAS is achieved by summing the recreational and academic reading attitude scores to compute a total reading attitude score. According to McKenna and Kear (1990), the instrument requires only 15 – 20 minutes to complete and is written at an elementary reading level.
Each of the 20-items on the survey presents a short and simple statement about reading followed by four comic strip pictures of Garfield the Cat in different attitudinal poses. The scoring for the attitudinal poses is on a 4-point scale. The highest score, 4, corresponds to the happiest Garfield, 3 points for slightly smiling Garfield, 2 points for mildly upset Garfield, and 1 point for a very upset Garfield. Table 4 displays the scoring guide and the interpretations of the scores.

Table 4

**ERAS Scoring Guide and Interpretations**

<table>
<thead>
<tr>
<th>Attitudinal Pose</th>
<th>Points</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Happiest Garfield</td>
<td>4</td>
<td>Very Positive Attitude</td>
</tr>
<tr>
<td>Slightly Smiling Garfield</td>
<td>3</td>
<td>Positive Attitude</td>
</tr>
<tr>
<td>Mildly Upset Garfield</td>
<td>2</td>
<td>Less Than Positive Attitude</td>
</tr>
<tr>
<td>Very Upset Garfield</td>
<td>1</td>
<td>Negative Attitude</td>
</tr>
</tbody>
</table>

The ERAS is one of the most used instruments to measure the reading attitudes of elementary students. According to ERAS developers, the reliability and validity of the instrument have been well established (McKenna & Kear, 1990). The authors reported Cronbach’s alphas that ranged from .74 to .89 in terms of construct reliability. Validity of the instrument was established through pilot studies using confirmatory and disconfirmatory analysis. The ERAS was made assessable to teachers and provided teachers with a tool that can be used to estimate their students’ reading attitude levels (McKenna & Kear, 1990)
Procedure

Prior to requesting approval to conduct the study from the IRB at Mississippi State University, permission was requested from the school district. After obtaining approval from district personnel to conduct the study, an application was submitted to the IRB of Mississippi State University. Upon IRB approval (see Appendix A), a consent letter was sent home with the students to obtain parental consent and student assent. After obtaining consent and assent, the students were asked to complete the ERAS. Demographic and MCT2 data was recorded by school district personnel after consent and assent had been obtained. After all data was obtained and linked by district personnel, the researcher recorded surveys results then delinked the data by removing students’ names and stored in a password protected electronic data file.

Data Analysis

This study utilized three research designs to answer the following seven research questions.

1. What are the recreational reading attitude scores of a group of sixth grade students by gender and ethnicity?
2. What are the academic reading attitude scores of a group of sixth grade students by gender and ethnicity?
3. Are there differences in recreational reading attitude scores of a group of sixth grade students by gender and ethnicity?
4. Are there differences in academic reading attitude scores of a group of sixth grade students by gender and ethnicity?
5. Is there a relationship between the recreational reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?

6. Is there a relationship between the academic reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?

7. Is there a relationship between the total reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?

To answer the first and second research questions, descriptive statistics were used. Specifically, the mean and standard deviation by gender and ethnicity was calculated. To answer the third and fourth research questions, $t$-tests and one-way ANOVA were computed. Prior to data analysis, data were screened to determine if the assumptions of normality and homogeneity of variance were met. The $t$ test yields a $t$-statistic and the ANOVA yields an $F$ statistic that was used to identify statistically significant differences in attitudes between and among groups. The final statistical procedure that was employed was the Pearson- $r$ correlation. The Pearson- $r$ correlation was computed to answer the last three research questions. The only assumption of the Pearson- $r$ procedure is that all variables represent at least the interval scale of measurement. While the ERAS has ordinal items, the instructions included with the survey state that the item responses to the survey are summed to represent total scores which are interval data. Consequently, the assumption of using the Pearson- $r$ was met by the nature of the data that was collected.
CHAPTER IV

RESULTS

The purpose of this study was to determine the recreational and academic reading attitudes of a group of sixth grade students and to determine if their attitudes toward reading were related to measures of their reading achievement. This chapter presents the results of data analyzed to answer the following questions:

1. What are the recreational reading attitude scores of a group of sixth grade students by gender and ethnicity?
2. What are the academic reading attitude scores of a group of sixth grade students by gender and ethnicity?
3. Are there differences in recreational reading attitude scores of a group of sixth grade students by gender and ethnicity?
4. Are there differences in academic reading attitude scores of a group of sixth grade students by gender and ethnicity?
5. Is there a relationship between recreational reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?
6. Is there a relationship between academic reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?
7. Is there a relationship between total reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?

This chapter is organized by research question. Each section begins with the research question followed by the statistical procedures that were conducted to answer the research question. Each section will conclude with the results of data analysis and the answer to the research question. The chapter concludes with a summary of the findings.

**Research Question 1**

What are the recreational reading attitude scores of a group of sixth grade students by gender and ethnicity?

The recreational reading subtest of the ERAS has 10 Likert scale items. The overall average recreational reading attitude score for the entire group of participants (N = 119) was 23.37 out of a possible score of 40. According to McKenna and Kear (1990), an average of 23.37 corresponds to the 24th percentile, meaning that the participants’ recreational reading attitude was as positive as or better than 24% of the norming population. An average score of 23.37 corresponds to slightly over half (58%) of the possible score of 40. According to McKenna and Kear, a score of 10 would represent a very upset Garfield, a score of 20 would represent a mildly upset Garfield, a score of 30 would represent a slightly smiling Garfield, and a score of 40 would represent the Happiest Garfield. Consequently, an average score of 23.37 is most closely related to a mildly upset Garfield. Therefore, the average recreational reading score of the participants indicates that the participants are mildly upset by the prospect of engaging in recreational reading activities.
Examination of recreational reading attitude scores by gender indicated that the average score for males was 26.01 (SD = 6.26) and the average score for females was 21.24 (SD = 6.70). Averages of 26.01 (males) and 21.24 (females) correspond to the 30th and 15th percentile. By rounding each of these average scores to the nearest 10’s place, an average score of 30 is observed for males and an average score of 20 is observed for females. These average scores correspond to a slightly smiling Garfield for males and a mildly upset Garfield for females. Meaning, on average, the recreational reading attitudes of males is more positive than that of females.

When recreational reading attitude scores by ethnicity were examined, it was revealed that the average recreational reading attitude of African Americans (M= 23.97, SD = 6.25) was more positive than that of Caucasians (M= 23.25, SD = 8.02) and students in the Other ethnic group (M= 16.33, SD = 4.08). The percentile rankings of the three ethnic groups were 29th, 24th, and 4th respectively. However, the average recreational reading attitude scores for all three groups (African Americans, Caucasians, and Other [Asian, Native American, or Hispanic]) rounds to 20, indicating that on average, the students in these groups have recreational reading attitudes that indicate recreational reading is an activity that is mildly upsetting. Consequently, regardless of ethnicity, the participants had recreational reading attitudes that were less than positive. Table 5 displays the descriptive statistics of the analysis that was used to answer Research Question 1.
Table 5

Recreational Reading Attitude Scores by Gender and Ethnicity

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>53</td>
<td>26.02</td>
<td>6.26</td>
<td>13</td>
<td>39</td>
</tr>
<tr>
<td>Females</td>
<td>66</td>
<td>21.24</td>
<td>6.70</td>
<td>10</td>
<td>39</td>
</tr>
<tr>
<td>African Americans</td>
<td>77</td>
<td>23.97</td>
<td>6.25</td>
<td>10</td>
<td>39</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>16.33</td>
<td>4.08</td>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td>Caucasians</td>
<td>36</td>
<td>23.25</td>
<td>8.02</td>
<td>10</td>
<td>39</td>
</tr>
</tbody>
</table>

Research Question 2

What are the academic reading attitude scores of a group of sixth grade students by gender and ethnicity?

The overall average academic reading attitude score for the entire group of participants was 23.01 out of a possible score of 40. According to McKenna and Kear (1990), an average of 23.01 corresponds to the 42nd percentile, meaning that the participants’ academic reading attitude was as positive as or better than 42% of the norming population.

Examination of academic reading attitude scores by gender revealed that the average score for males was 24.21 ($SD = 5.86$) and 22.06 ($SD = 5.73$) for females. After rounding to the nearest 10’s, average scores of 20 were obtained for both males and females. An average score of 20 indicates that, on average, academic reading is an activity that is mildly upsetting for the students. Therefore, the attitude toward academic reading is less than positive for males and females.
When academic reading attitudes by ethnicity were examined, it was revealed that the average academic reading attitude of Caucasians ($M = 25.64, SD = 5.89$) was more positive than that of African Americans ($M = 22.06, SD = 5.27$) and students in the Other ethnic group ($M = 19.50, SD = 8.26$). The percentile rankings of the three ethnic groups were 60th (Caucasians), 36th (African Americans), and 24th (Other). Rounding resulted in average scores of 30 for Caucasians and 20 for African Americans and Others. Consequently, the academic reading attitudes of Caucasians is described as slightly positive while the academic reading attitudes of African Americans and Others is described as less than positive. The Table 6 displays the descriptive statistics of the analysis that was used to answer Research Question 2.

Table 6

*Academic Reading Attitude Scores by Gender and Ethnicity*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>53</td>
<td>24.21</td>
<td>5.87</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td>Females</td>
<td>66</td>
<td>22.06</td>
<td>5.73</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td>African Americans</td>
<td>77</td>
<td>22.06</td>
<td>5.27</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>19.50</td>
<td>8.26</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Caucasians</td>
<td>36</td>
<td>25.63</td>
<td>5.89</td>
<td>13</td>
<td>38</td>
</tr>
</tbody>
</table>

**Research Question 3**

Are there differences in the recreational reading attitude scores of a group of sixth grade students by gender and ethnicity?
Prior to data analysis to answer this research question, the data were screened to determine if the assumptions of normality and homogeneity of variances were met for $t$-test and ANOVA. To test the assumption of normality, the Shapiro-Wilk test of normality was computed. The result of the Shapiro-Wilk test indicated that the assumption of normality was met for the recreational reading scores (see Table 7). The Levene’s Test for Equality of Variances was computed to determine if the assumption of homogeneity of variance was met for gender and ethnicity. There was homogeneity of variances for recreational reading attitude scores for males and females, as assessed by Levene’s Test for Equality of Variances, $F= .67 (p = .41)$. The assumption of homogeneity of variances for ethnicity was violated, $F = 3.50 (p = .03)$. Although ANOVA is said to be robust against this violation, the Kruskal-Wallis nonparametric test was computed in addition to the ANOVA, to determine if the two tests yielded consistent results.

Table 7

<table>
<thead>
<tr>
<th>Shapiro-Wilk Test of Normality for Recreational Reading Attitude Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading Attitude</strong></td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Recreational</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Recreational Reading Attitude by Gender

To determine if there were differences in measures of recreational reading by gender, an independent samples t-test was computed to compare recreational reading attitude scores of males and females. There was a significant difference in recreational reading attitude scores, $t(117) = 3.98, p = .00$, of males and females. Males had statistically significant higher recreational reading attitude scores ($M = 26.02$, $SD = 6.26$) than females ($M = 21.24$, $SD = 6.70$). Rounding of average scores results in a 30 for males and a 20 for females. These scores correspond to slightly positive (slightly smiling Garfield) and mildly negative (mildly upset Garfield) recreational reading attitudes for males and females respectively. Table 8 displays the results of the descriptive and inferential analysis for differences in recreational reading attitudes by gender.

Table 8

Recreational Reading Attitude Scores by Gender

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
<th>$T$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>53</td>
<td>26.02</td>
<td>6.26</td>
<td>13</td>
<td>39</td>
<td>3.98</td>
<td>.00</td>
</tr>
<tr>
<td>Females</td>
<td>66</td>
<td>21.24</td>
<td>6.70</td>
<td>10</td>
<td>39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Recreational Reading Attitude by Ethnicity

The Kruskal-Wallis and the ANOVA were computed to determine if there were significant differences in recreational reading attitude scores for students of different ethnicities. The Kruskal-Wallis was computed because the data violated the assumption of homogeneity of variances. The results of the Kruskal-Wallis analysis indicated that
there was a significant difference among the median scores of the ethnic groups, $\chi^2(2, N = 119) = 7.56, p = .02$. Since there are no post hoc tests associated with the Kruskal–Wallis, ANOVA was computed to determine if statistical significance would continue to be observed with the parametric test because the ANOVA has post hoc tests. The results of the ANOVA indicated that there was a statistically significant difference in the recreational reading attitude scores among the ethnic groups, $F(2, 116) = 3.56, p = .03$.

Post hoc analysis using Tukey’s HSD indicated that African Americans ($M = 23.97, SD = 6.25$) and Caucasians ($M = 23.25, SD = 8.01$) scored significantly higher than the Other ethnicity group ($M = 16.33, SD = 4.08$). The results of Tukey’s HSD also indicated that African Americans scored significantly higher than Caucasians. Table 9 displays the descriptive and inferential statistics for the ANOVA results for the recreational reading attitude scores by ethnicity. Consequently, the answer to Research Question 3 is yes, there are differences in recreational reading attitude scores by gender and ethnicity.

Table 9

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
<th>$F$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>77</td>
<td>23.97</td>
<td>6.25</td>
<td>10.00</td>
<td>39.00</td>
<td>3.56</td>
<td>.03</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>16.33</td>
<td>4.08</td>
<td>13.00</td>
<td>24.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasians</td>
<td>36</td>
<td>23.25</td>
<td>8.02</td>
<td>10.00</td>
<td>39.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Research Question 4**

Are there differences in academic reading attitudes of a group of sixth grade students by gender and ethnicity?
Prior to data analysis to answer this research question, the data were screened to determine if the assumptions of normality and homogeneity of variances were met for t-test and ANOVA. To test the assumption of normality, the Shapiro-Wilk test of normality was computed. The result of the Shapiro-Wilk test indicated that the assumption of normality was met for the academic reading scores (see Table 10). The Levene’s Test for Equality of Variances was computed to determine if the assumption of homogeneity of variances was met for gender and ethnicity. There was homogeneity of variances for academic reading attitude scores for males and females, as assessed by Levene’s Test for Equality of Variances, $F = .09 \ (p = .77)$. The assumption of homogeneity of variances for ethnicity was also met, $F = 1.94 \ (p = .15)$. Consequently, the t-test and the ANOVA are appropriate tests to run.

Table 10

*Shapiro-Wilk Test of Normality Results*

<table>
<thead>
<tr>
<th>Reading Attitude</th>
<th>Independent Variable</th>
<th>Levels</th>
<th>Shapiro-Wilk Statistic</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>Gender</td>
<td>Females</td>
<td>.98</td>
<td>66</td>
<td>.27</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>Males</td>
<td>.98</td>
<td>53</td>
<td>.52</td>
</tr>
<tr>
<td></td>
<td>Ethnicity</td>
<td>African Americans</td>
<td>.99</td>
<td>77</td>
<td>.84</td>
</tr>
<tr>
<td></td>
<td>Ethnicity</td>
<td>Caucasians</td>
<td>.97</td>
<td>36</td>
<td>.48</td>
</tr>
<tr>
<td></td>
<td>Ethnicity</td>
<td>Other</td>
<td>.93</td>
<td>6</td>
<td>.56</td>
</tr>
</tbody>
</table>

**Academic Reading Attitude by Gender**

To determine if there were differences in measures of academic reading attitudes by gender, an independent samples t-test was computed to compare academic reading...
attitude scores of males and females. There was a significant difference in academic reading attitude scores, \( t(117) = 2.03, p = .04 \), between males and females. Males had significantly higher academic reading attitude scores \( (M = 24.21, SD = 5.87) \) than females \( (M = 22.06, SD = 5.73) \). Table 11 displays the results of the analysis used to determine differences in the academic reading attitude scores by gender.

### Table 11

**Academic Reading Attitude Scores by Gender**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
<th>( T )</th>
<th>( P )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>53</td>
<td>24.21</td>
<td>5.87</td>
<td>10</td>
<td>38</td>
<td>4.01</td>
<td>.04</td>
</tr>
<tr>
<td>Females</td>
<td>66</td>
<td>22.06</td>
<td>5.73</td>
<td>10</td>
<td>38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Academic Reading Attitude by Ethnicity

To determine if there were differences in measures of academic reading by ethnicity, ANOVA was computed to compare academic reading attitude scores of African Americans, Caucasians, and Other ethnicities. There was a significant difference in academic reading attitude scores, \( F(2, 118) = 6.20, p = .00 \), among ethnic groups. Tukey’s HSD revealed that the Caucasian students scored significantly higher than the African American students did \( (M = 22.06, SD = 5.27) \) and the students in the Other ethnicities group \( (M = 19.50, SD = 8.26) \). Table 12 displays descriptive and inferential statistics for academic reading attitude scores by ethnicity. Consequently, the answer to Research Question 4 is that there are differences in academic reading attitude scores by gender and ethnicity.
Table 12

Academic Reading Attitude Scores by Ethnicity

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>77</td>
<td>22.06</td>
<td>5.27</td>
<td>10.00</td>
<td>38.00</td>
<td>6.20</td>
<td>.00</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>19.50</td>
<td>8.26</td>
<td>10.00</td>
<td>30.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasians</td>
<td>36</td>
<td>25.63</td>
<td>5.89</td>
<td>13.00</td>
<td>38.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Research Question 5

Is there a relationship between recreational reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?

A Pearson $r$ correlation coefficient was computed to determine if the recreational reading attitude scores of a group of sixth grade students was related to their fifth grade MCT2 language arts scores. There was not a statistically significant relationship between the recreational reading attitude scores and the MCT2 language arts scores, $r = -.09, p = .32$. Therefore, it appears that a student’s recreational reading attitude is not related to their reading achievement as measured by the MCT2 language arts test.

Research Question 6

Is there a relationship between academic reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?

A Pearson $r$ correlation coefficient was computed to determine if the academic reading attitude scores of a group of sixth grade students was related to their fifth grade MCT2 language arts scores. There is a statistically significant relationship between the academic reading attitude scores and the MCT2 language arts scores, $r = .18, p = .04$. 
While the relationship was statistically significant, it was a very weak relationship. Because the interpretation of a correlation coefficient depends on context and purpose, guidelines have been offered for interpretation; according to Rodgers and Nicewander (1995), correlations between 0.1 and 0.3 indicate a small correlation. Therefore, an $r$ value of .18 represents a very weak relationship. With an $r$-value of .18, only 3% of the variation in MCT2 language arts scores is explained by the variation in academic reading attitude scores. Nevertheless, it appears that a student’s academic reading attitude is weakly related to their reading achievement as measured by the MCT2 language arts test.

**Research Question 7**

Is there a relationship between total reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores?

A Pearson $r$ correlation coefficient was computed to determine if the total reading attitude scores of a group of sixth grade students was related to their fifth grade MCT2 language arts scores. There was not a statistically significant relationship between the total reading attitude scores and the MCT2 language arts scores, $r = .04, p = .68$. Therefore, it appears that a student’s overall reading attitude is not related to their reading achievement as measured by the MCT2 language arts test. Table 13 displays the statistics that were computed to answer Research Questions 5 – 7.
Table 13

Correlations between MCT2 Language Arts Scores and Elementary Reading Attitude Survey Scores

<table>
<thead>
<tr>
<th>Elementary Reading Attitude Survey</th>
<th>MCT Language Arts Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational Scores</td>
<td>Pearson Correlation: -0.09</td>
</tr>
<tr>
<td></td>
<td>Significance (2-tailed): 0.32</td>
</tr>
<tr>
<td></td>
<td>N: 119</td>
</tr>
<tr>
<td>Academic Scores</td>
<td>Pearson Correlation: 0.18</td>
</tr>
<tr>
<td></td>
<td>Significance (2-tailed): 0.04</td>
</tr>
<tr>
<td></td>
<td>N: 119</td>
</tr>
<tr>
<td>Total Scores</td>
<td>Pearson Correlation: 0.04</td>
</tr>
<tr>
<td></td>
<td>Significance (2-tailed): 0.68</td>
</tr>
<tr>
<td></td>
<td>N: 119</td>
</tr>
</tbody>
</table>

Summary

Chapter IV reported the results of data analysis that was used to answer the seven research questions that guided the present study. Data were analyzed using descriptive statistics and inferential statistics. This section of Chapter IV provides a summary of the findings of this study.

To answer Research Questions 1 through 4, recreational and academic reading attitude scores were examined by gender and ethnicity. The results of data analysis examining recreational reading attitude scores by gender revealed that males’ recreational reading attitudes could be described as slightly positive (slightly smiling Garfield) and the females’ attitudes could be described as a mildly upset attitude (mildly upset Garfield). Moreover, the difference in their recreational reading attitude scores was
The results of data analysis examining academic reading attitude scores revealed that males also had statistically significant higher scores than females but the academic reading attitude of both males and females could be considered as a mildly upset attitude.

The results of data analysis examining recreational reading attitude scores by ethnicity revealed that all three ethnic groups (African Americans, Caucasians, and Other ethnicities) had recreational reading attitudes that could be considered less than positive. However, the differences in the scores among the three groups were statistically significant. The average recreational reading attitude score of African Americans was significantly higher than the average scores of Caucasians and the Other ethnicities group and the average recreational reading attitude score of Caucasians was higher than that of the Other ethnicities group. The results of the analysis examining academic reading attitude scores revealed that the academic reading attitude of Caucasian students could be considered slightly positive while the academic reading attitude of African American students and students of Other ethnicities could be considered less than positive (mildly upset). The results also revealed that the average academic reading attitude score of Caucasian students was significantly higher than that of African American students and of the students in the Other ethnicities group.

To answer Research Questions 5 through 7, Pearson $r$ correlation coefficients were computed to determine if the recreational, academic, and total reading attitude scores of the participants were related to their MCT2 language arts scores. The results of this series of analysis revealed only one statistically significant relationship. There was a very weak relationship between participants’ academic reading attitude scores and the
MCT2 language arts scores. The MCT2 languages arts scores were not related to the recreational reading attitude scores or the total attitude scores.
Chapter V is divided into three major sections. The first section, Summary, provides a summary of Chapters I-V. The second section discusses the major findings of the study and their implications. The final section, Conclusion, provides a conclusion to the study and includes recommendations that are offered because of the findings of the study and recommendations for further research.

Summary

A quality education is the driving force for growth in the globalized economy, but American students are finding it difficult to compete with students from other countries (Gurria, 2007; Peterson et al., 2011). In the highly competitive, globalized economy of the United States, improving student academic achievement continues to be a national priority as evidenced by the mandates of NCLB. Reading is a skill that is prerequisite to not only high measures of academic achievement but also being able to function in the American culture. However, according to the 2011 NAEP results, 67% of fourth- and eighth-graders nation-wide participating in the NAEP assessment failed to demonstrate reading proficiency.

As a means of increasing reading achievement, the NCLB legislation endorsed the use of scientifically based reading interventions. However, even with the use of
scientifically based reading interventions, reading achievement for the nation’s students has not reached an acceptable level. Research conducted by McKenna et al. (1995) suggests that students’ attitudes towards reading may impede their overall academic achievement and their achievement in reading. The purpose of this study was to determine the recreational and academic reading attitudes of a group of sixth grade students and to determine if their attitudes toward reading were related to measures of their reading achievement.

The participants of this study attended a rural middle school in east central Mississippi. Of the total population of 359 sixth grade students attending this school, 119 participated in the study. To fulfill the purpose of this study, the participants completed the ERAS and the researcher gathered archived MCT2 language arts scores. The ERAS and MCT2 language arts scores were analyzed to answer the seven research questions that guided the study.

Three research designs and several statistical procedures were used to answer the seven research questions of this study. To answer Research Questions 1 and 2, a descriptive research design was employed and the data was analyzed using descriptive statistics. Research Questions 3 and 4 were answered using a causal comparative research design and conducting t-tests and ANOVAs. Research Questions 5, 6, and 7 were answered using a correlational research design and computing the Pearson r correlation coefficient.

The following represents the seven research questions that guided this study and the answers to those research questions.
1. What are the recreational reading attitude scores of a group of sixth grade students by gender and ethnicity? The average recreational reading attitude score of males was 26.01 and 21.24 for females. These scores correspond to positive recreational reading attitudes for males and less than positive recreational reading attitudes for females. Examination of recreational reading attitudes by ethnicity revealed average scores of 23.97 for African Americans, 23.25 for Caucasians, and 16.33 for students of other ethnicities. All three of these averages correspond to less than positive recreational reading attitudes.

2. What are the academic reading attitude scores of a group of sixth grade students by gender and ethnicity? The average academic reading attitude score for males was 24.21 and 22.06 for females. Both of these scores correspond to less than positive academic reading attitudes. Examination of academic reading attitudes by ethnicity revealed average scores of 22.06 for African Americans, 25.64 for Caucasians, and 19.50 for students of other ethnicities. The average academic reading attitude scores for African Americans and students of other ethnicities correspond to less than positive academic reading attitudes averages and the average score for Caucasians correspond to slightly positive academic reading attitudes.

3. Are there differences in recreational reading attitude scores of a group of sixth grade students by gender and ethnicity? There was a statistically significant difference in the recreational reading attitude scores of males and females. Males had a higher average recreational reading score than
females. There was also a statistically significant difference in the recreational reading attitude scores by ethnicity. The average recreational reading attitude score of African American students was higher than the average score of Caucasian students and students of other ethnicities and the average recreational reading attitude score of Caucasian students was higher than the average recreational reading attitude score of students of other ethnicities.

4. Are there differences in academic reading attitude scores of a group of sixth grade students by gender and ethnicity? There was a statistically significant difference in the academic reading attitude scores of males and females. Males had a higher average academic reading score than females. There was also a statistically significant difference in the academic reading attitude scores by ethnicity. The average academic reading attitude score of Caucasian students was higher than the average score of African American students and students of other ethnicities. There was no statistically significant difference between the average academic reading attitude score of African American Students and students of other ethnicities.

5. Is there a relationship between the recreational reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores? There was no statistically significant relationship found between the recreational reading attitude scores and the MCT2 language arts scores.
6. Is there a relationship between the academic reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores? The academic reading attitude scores of a group of sixth grade students were positively related to their fifth grade MCT2 language arts scores. However, the relationship between the scores was a very weak relationship.

7. Is there a relationship between the total reading attitude scores of a group of sixth grade students and their fifth grade MCT2 language arts scores? There was no statistically significant relationship found between the total reading attitude scores and the MCT2 language arts scores.

Discussion

Seven research questions were answered in this study. This section of Chapter V, organized by research design (descriptive, causal comparative, and correlational), discusses the answers to those questions and the major findings of the study. Also included in this section are the implications of those findings and how they support or fail to support prior research.

Descriptive Research Questions

Research Questions 1 and 2 were answered using a descriptive research design. The results of data analyzed to answer these two research questions provoke interesting discussion. First, the results of data analysis revealed that males had higher recreational and academic reading attitude averages than females. This finding fails to support the findings of other researchers (Anderson et al., 1985; Askov & Fischbach, 1973; Martinez,
et al., 2008; McKenna, et al. 1995) who found that females had higher measures of reading attitude than males. According to McKenna et al. (1995), cultural norms are such that girls are expected to spend more time reading and boys are expected to spend more time participating in more activities, hence the expected difference in reading attitudes. Moreover, scholars have attributed girls out performing boys on measures of reading achievement to the increased time spent on reading. So, following this line of reasoning, since the males had more favorable attitudes toward reading than females it might be expected that they would also have higher measures of reading achievement. However, that was not the case. The MCT2 language arts scores of females (m = 152.32) were higher than the MCT2 language arts scores of males (m = 150.04). Interesting is the fact that on measures of reading attitudes the findings of this study contradicted prior research but was consistent with prior research in that females outperformed males on the measure of reading achievement. These findings refute the findings of Roettger et al. (2001), who found that higher measures of academic achievement were related to higher and more positive measures of reading attitude. Even in comparing measures of recreational reading attitude to measures of academic reading attitude, the findings were inconsistent. For males, the average recreational reading attitude score was higher than their average academic reading attitude score, which was consistent with prior research (McKenna et al., 1995). However, for females, the inverse was true. Females had higher academic reading attitude scores than recreational reading attitude scores. Consequently, in terms of gender, the inconsistencies in the findings fail to result in any clear implications.

Data analyzed to determine recreational and academic reading attitude by ethnicity also yielded interesting but inconsistent findings. In terms of recreational
reading attitudes, African American students (m = 23.97) had a higher average than Caucasian students (m = 23.25) and students of other ethnicities (m = 16.33). This finding somewhat contradicted the finding of McKenna et al. (1995) who found that Caucasian students had higher measures of recreational reading attitudes than African American students. However this finding was consistent in that both groups (Caucasians and African American) had higher measures of recreational reading attitudes than Hispanics (member of the other ethnicities group in the present study). Examination of academic reading attitude scores revealed that Caucasian students (m = 25.63) had an average score that was higher than African American students (m = 22.06) and students of other ethnicities (m = 19.50). Once again, this is a partial contradiction of the findings of McKenna et al. (1995), who found African American students had higher measures of academic reading than Caucasian students. However, in both studies, the group including Hispanics had the lowest measures of academic reading attitude. Simply stated, the results of analysis examining recreational and academic reading attitude scores revealed that African American students had the highest recreational reading attitude average, Caucasian students had the highest academic reading attitude average, and students of other ethnicities had the lowest recreational and academic reading attitude averages.

Examination of MCT2 language arts scores by ethnicity revealed a pattern that was somewhat different. When average MCT2 language arts scores for the three ethnic groups were examined, African American students (m = 146.74) had the lowest average score and Caucasian students (m = 159.72) had an average MCT2 language arts score slightly higher than the average of students of other ethnicities (m = 159.33). The MCT2 language arts average for Caucasian students and students of other ethnicities fell into the
proficient range of scores. The average score for African American students fell in the basic range of scores, meaning on average, African American students in this study demonstrated partial mastery of sixth-grade language arts. In comparing recreational reading attitude scores to academic reading attitude scores, the Caucasian students and the students of other ethnicities had higher academic reading attitude scores than recreational reading attitude scores. However, for African American students, the trend was reversed. Their recreational reading attitude average was higher than their academic reading attitude average. This finding was confusing in light of prior research reporting that higher achieving students had higher measures of reading attitude (Kush et al., 2005). That was clearly not the case for the students participating in this study. African American students participating in this study had the lowest measures of reading achievement but the highest measures of recreational reading attitudes. If attitude is really related to ability and achievement, then based on MCT2 results it seems unlikely that the group of African American students have better attitudes about reading in their free time than they do about reading when reading is required.

The results of data analysis to answer Research Questions 1 and 2 did not render any clear and consistent implications when reading attitudes (both recreational and academic) were examined while considering academic achievement. The results indicated that males had better reading attitudes than females but neither had reading attitudes that were very positive. The same could be said for reading attitudes by ethnicities. The reading attitudes of all three ethnic groups were not very positive.
Causal Comparative Research Questions

Research Questions 3 and 4 were answered using a causal comparative research design. To answer the questions, measures of recreational and academic reading attitudes were compared by gender and ethnicity. The difference in recreational reading attitude scores between males and females was statistically significant as was the difference in academic reading attitude scores. In both cases, males scored significantly higher than females. This finding implies that the differences found between the scores of males and females was a real difference and not a difference that resulted by chance and academic reading attitudes that are more positive than females. As previously stated, this finding fails to support prior research (Askov & Fishbach, 1973) that found females had more positive attitudes.

The results of the analysis of differences in reading attitude by ethnicity also found significant differences. In the analysis of recreational reading attitude scores, African American students scored significantly higher than Caucasian students and students of Other ethnicities. This finding contradicts the findings of (McKenna et al., 1995) who found that African American students had the less than positive reading attitudes. In examining academic reading attitude scores the findings of the current study mirrored those of the study conducted by (Roach, 2004) in that Caucasian students had academic reading attitude scores that were statistically significantly higher than the scores of African American students. However, unlike prior research findings, the African American students had academic reading attitude scores that were statistically significantly higher than the scores of the students in the other ethnicities group. Therefore, the findings of data analysis used to answer Research Questions 3 and 4 imply
that there are real differences in recreational and academic reading attitudes by both gender and ethnicity. However, when the results of analysis of reading attitude scores are considered along with MCT2 language arts scores, the real significance of those differences must be interpreted with caution because of the absence of clear attitude and achievement trends.

**Correlational Research Questions**

The final three research questions were answered using a correlational research design. In essence, the answers to the final three questions help explain, to some degree, the inconsistencies found in the previous four answers. The results of data analysis used to answer Research Questions 5-7 revealed that recreational reading attitude scores and total reading attitude scores were not related to MCT2 language arts scores. The only statistically significant relationship discovered was a positive, very weak relationship between academic reading attitude scores and MCT2 language arts scores. This finding was consistent with the weak relationship reported by Kush et al. (2005).

The results of this study suggest that a student’s reading attitude is not meaningfully related to their reading achievement as measured by the MCT2 language arts test. However, the interpretation is offered with caution for two main reasons. The first reason for caution results from the overall low measures of reading attitudes exhibited by the participating students. The highest percentile ranking for the participating students was the 42nd percentile ranking for academic reading attitude average. As a whole, the reading attitude for the entire sample was below the national norm for the ERAS. It may be possible that the population that served as the norming population was not representative of the sample for this study.
The second reason for caution results from the finding that all groups except for the African American group scored in the proficient range on the MCT2 language arts test. Clearly this finding is not consistent with the 2011 NAEP results that reported 67% of Mississippi’s fourth- and eighth-graders were not proficient in reading (NCES, 2011). Although this study analyzed fifth grade MCT2 language arts scores, it is unlikely that reading proficiency would fluctuate that much between fourth and fifth grades and then again in the eighth grade. The inconsistency in rates of proficiency reported by NCES and MDE may suggest that the rigor of different tests may affect the relationship between measures of achievement and measures of reading attitudes.

**Conclusions**

The results of this study suggest that reading attitudes are not related to reading achievement. However, these findings are very telling regarding the attitudes held by the participating students who were very representative of the total sixth grade population of the participating school.

The results of this study indicate that the attitudes of the participants regardless of gender or ethnicity are not very positive. Although the results of data analysis for this study did not reveal any meaningful relationships; however, from a more qualitative perspective it is apparent that attitudes can impact both effort and quality of outcomes. To know that the students at this school do not have positive attitudes toward reading is useful to educational leaders and administrators as they continue to identify means of increasing student achievement at their schools. The following represent recommendations that are offered as a result of this study.
Recommendations

- The first recommendation is to conduct a longitudinal study including more grade levels to explore the development of reading attitudes over a period of time.
- The second recommendation is to replicate the study and include SES to determine if SES has an effect on reading attitudes and academic achievement.
- The third recommendation is to complete periodic assessments of students reading achievement and attitudes toward reading to provide this data for teachers.
- The fourth and final recommendation is to conduct a further study with a qualitative design, which suggests an in-depth investigative interview could gather further attitudinal information from students.

One of the aims of educational leaders should be that of helping to develop the love of learning and promote lifelong learning, in which case students’ attitudes toward reading and school in general are very important. Clearly the attitudes held by the students at this school are less favorable than the vast majority of their sixth grade peers on which the ERAS was normed as evidenced by the low percentile rankings observed. Reading proficiency is so important for academic achievement that educational leaders cannot afford to discredit any potential avenue of increasing reading proficiency. The less than positive reading attitudes held by these students coupled with the comparatively low academic standings of Mississippi’s students warrant the allocation of time and resources to improve students’ attitudes toward reading.
REFERENCES


APPENDIX A

NOTIFICATION OF APPROVAL TO CONDUCT RESEARCH
Study 12-234: Recreational and Academic Reading Attitudes of Sixth Grades Students and Measures of Readability

From: cwilliams@research.msstate.edu
Sent: Mon 7/30/12 3:55 PM
To: susanward94@hotmail.com
Cc: cwilliams@research.msstate.edu; cwilliams@research.msstate.edu

July 30, 2012

Susan L. Ward
Dept of Leadership and Foundations

RE: IRB Study #12-234: Recreational and Academic Reading Attitudes of Sixth Grades Students and Measures of Readability

Dear Ms. Ward:

This email serves as official documentation that the above referenced project was reviewed and approved via administrative review on 7/30/2012 in accordance with 45 CFR 46.101(b)(1). Continuing review is not necessary for this project. However, any modification to the project must be reviewed and approved by the IRB prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please note that the MSU IRB is in the process of seeking accreditation for our human subjects protection program. As a result of these efforts, you will likely notice many changes in the IRB’s policies and procedures in the coming months. These changes will be posted online at http://www.orc.msstate.edu/human/aahrpp.php. The first of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the IRB approved version of the consent form is used in the actual conduct of research. Your stamped consent form will be attached in a separate email.

Please refer to your IRB number (#12-234) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at cwilliams@research.msstate.edu or call 662-325-5220.

In addition, we would greatly appreciate your feedback on the IRB approval process. Please take a few minutes to complete our survey at http://www.surveymonkey.com/s/Y2C7QOD.

Sincerely,

Christine Williams, MPPA, CIP
IRB Compliance Administrator

cc: Debra Prince (Advisor)