University of North Dakota
UND Scholarly Commons

Theses and Dissertations | Theses, Dissertations, and Senior Projects

January 2015

Investigating The Relationship Between Elementary Students' Motivation To Read And Academic Achievement In Reading

Erin Sullivan Peterson

Follow this and additional works at: https://commons.und.edu/theses

Recommended Citation
Peterson, Erin Sullivan, "Investigating The Relationship Between Elementary Students' Motivation To Read And Academic Achievement In Reading" (2015). *Theses and Dissertations*. 1824.
https://commons.und.edu/theses/1824

This Dissertation is brought to you for free and open access by the Theses, Dissertations, and Senior Projects at UND Scholarly Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of UND Scholarly Commons. For more information, please contact zeineb.yousif@library.und.edu.

INVESTIGATING THE RELATIONSHIP BETWEEN ELEMENTARY STUDENTS' MOTIVATION TO READ AND ACADEMIC ACHIEVEMENT IN READING

by

Erin Sullivan Peterson
Bachelor of Science, University of North Dakota, 2006
Master of Education, University of North Dakota, 2008

A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirement

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota

August 2015

Copyright 2015 Erin Sullivan Peterson

This dissertation, submitted by Erin Sullivan Peterson in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

Dr. Shelby Barrentine, Chair

Dr. Pamela Beck

Dr. Mark Guy

Dr. Robert Stupnisky

This dissertation is being submitted by the appointed advisory committee as having met all of the requirements of the School of Graduate Studies at the University of North Dakota and is hereby approved.

Wayne Swisher
Dean of the School of Graduate Studies

Date

PERMISSION

Title	Investigating the Relationship Between Elementary Students' Motivation to Read and Academic Achievement in Reading
Department	Teaching and Learning
Degree	Doctor of Philosophy

In presenting this dissertation in partial fulfillment of the requirements for a graduate degree from the University of North Dakota, I agree that the library of this University shall make it freely available for inspection. I further agree that permission for extensive copying for scholarly purposes may be granted by the professor who supervised my dissertation work or, in his/her absence, by the Chairperson of the department or the dean of the School of Graduate Studies. It is understood that any copying or publication or other use of this dissertation or part thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of North Dakota in any scholarly use which may be made of any material in my dissertation.

Erin Sullivan Peterson
August 1, 2015

TABLE OF CONTENTS

LIST OF FIGURES x

LIST OF TABLES xi

ACKNOWLEDGEMENTS xiv

ABSTRACT xvii

CHAPTER

I. INTRODUCTION 1

Statement of the Problem 2

Importance of the Study 3

Study Purpose and Research Questions 4

Acronyms 5

Theoretical Framework 6

Limitations 11

Organization of the Study 12

II. LITERATURE REVIEW 13

Expectancy-Value Theory 13

Subjective Task Value Constructs 14

Expectancy-Value Theory and Elementary Students 15

Expectancy-Value Theory and Reading 16

Reading Motivation 17

Aspects of Reading Motivation 18

Reading Motivation Measurements 20

General Studies in Elementary Reading Motivation 24

Grade Level Differences in Elementary Reading Motivation 25

Gender Differences in Elementary Reading Motivation 27

Factors Affecting Reading Motivation 28

Academic Achievement in Reading 32

Achievement Measurements 34

Grade Level Differences in Elementary Reading Achievement 38

Gender Differences in Elementary Reading Achievement 40

Reading Motivation and Academic Achievement in Reading 42

General Studies in Elementary Reading Motivation and Achievement 42

Grade Level Differences in Elementary Reading Motivation and Achievement 43

Gender Differences in Elementary Reading Motivation and Achievement 44

Synthesis of Findings from the Literature 45

III. METHODOLOGY 49

Participants 49

Instrumentation 49

Motivation to Read Profile 50

Additional Motivation to Read Profile Data 51
Teacher Rating Scale of Reading Motivation 52
Minnesota Comprehensive Assessment in Reading 52
Fountas and Pinnell Reading Benchmark Assessment . 59
Teacher Rating Scale of Reading Achievement 60
Procedure 61
Phase One 61
Phase Two 62
Data Analysis and Hypotheses 64
Research Question 1 64
Research Question 2 66
Research Question 3 67
Research Question 4a 67
Research Question 4b 68
IV. RESULTS 70
Introduction 70
Descriptive Statistics 70
Gender and Grade Frequencies 71
Motivation to Read Profile 72
Teacher Rating Scale 90
MCA Scores 91
Reading Benchmark Scores 92
All Correlation Matrix 93

Research Question 1 94
Research Question 2 96
Research Question 3 100
Research Question 4a 101
Self-Concept 105
Value 106
Motivation 106
TRS of Reading Motivation 106
MCA 107
RBA 107
TRS of Reading Achievement 107
Research Question 4b 108
Self-Concept and Achievement 110
Value and Achievement 111
MRP and Achievement 111
TRS of Motivation and Achievement 112
Summary of Findings 112
V. DISCUSSION 116
Summary of Findings and Interpretation of Results 116
Implications 121
Limitation and Future Directions 124
Conclusion 125

APPENDICES 127

A. Motivation to Read Profile (Expectancy-Value) 128

B. Motivation to Read Profile 130

C. Teacher Rating Scales 135

D. Literature Standards 136

E. Informational Text Standards 138

F. Minnesota Comprehensive Assessment (MCA) Scores 140

G. Minnesota Comprehensive Assessment Example (Grade 4) 141

H. Fountas and Pinnell's Benchmark Continuum 142

I. Fountas and Pinnell's Reading Benchmark Assessment 143

J. Letter of Introduction to Parents and Guardians 151

K. Letter of Introduction to Students 152

L. Institutional Review Board (IRB) Approval 153

M. Codes Used to Input Data in SPSS Software 154

REFERENCES 164

LIST OF FIGURES

Figure Page

1. Eccles, Wigfield, and Colleagues' Expectancy-Value Theory Model of Achievement Motivation..... 7

2. Study Model 10

LIST OF TABLES

Table		Page
1.	Motivational Measures	20
2.	Assessment Techniques	34
3.	Number of Items (Questions) Recommended for Each Skill Domain Addressed by the MCA Reading Test	54
4.	Target Number of Minimum Items on an MCA Reading Test by DOK Level	54
5.	Target Number of Passages and Items on an MCA Reading Test by Substrand	55
6.	Lexile Readability Ranges by Grade	56
7.	Target Number of Passages by Passage Length for MCA Reading Tests	57
8.	Target Number of Words for Passages on the MCA Reading Test	57
9.	Target Number of Words for Short, Medium, and Long Passage Lengths	57
10.	Gender and Grade: Frequencies of Participants	72
11.	Self-Concept as a Reader: Response Frequencies	74
12.	Correlation Matrix for Self-Concept as a Reader	75
13.	Value of Reading: Response Frequencies	76
14.	Correlation Matrix for Value as a Reader	77
15.	Incorporating Reading at Home: Response Frequencies	79
16.	Correlation Matrix for Incorporating Reading at Home	80
17.	Teacher Modeling: Response Frequencies	81

18. Correlation Matrix for Teacher Modeling 82

19. Student Choice: Response Frequencies 83

20. Correlation Matrix for Student Choice 84

21. Social Interaction: Response Frequencies 86

22. Correlation Matrix for Social Interaction 86

23. Motivation to Read Profile – by participant gender 87

24. Motivation to Read Profile – by participant grade 88

25. Motivation to Read Profile – by participant gender and grade 89

26. Teacher Rating Scale (TRS) of Reading Motivation: Rating Frequencies 90

27. Teacher Rating Scale (TRS) of Reading Achievement: Rating Frequencies 91

28. Ratings from MN Comprehensive Assessment (MCA) Scores: Rating Frequencies 92

29. Ratings from Reading Benchmark Assessment (RBA) Scores: Rating Frequencies 93

30. All Variables Correlation Matrix – All Participants 94

31. Elementary Students' Motivation to Read 96

32. Correlation Matrix 97

33. Results of Multiple Regression Analyses: Predicting Motivation to Read 98

34. Correlation Coefficients for Relationships Between Elementary Students' Motivation to Read and Their Academic Achievement in Reading 101

35. Main and Interaction Effects of Elementary Students' Motivation to Read and Their Reading Achievement 103

36. Elementary Students' Motivation to Read and Their Reading Achievement by Gender 104

37. Elementary Students' Motivation to Read and Their Reading Achievement by Grade 104

38. Elementary Students' Motivation to Read and Their Reading Achievement by Gender and Grade 105

39. Relationship Between Elementary Students' Motivation to Read and Their Reading Achievement 109

ACKNOWLEDGEMENTS

I would like to thank the many individuals who have played an integral part in this journey I began 4 years ago. It takes a village in order for one individual to succeed, and I am so grateful for those who are in mine. I need to share this accomplishment with them. First, I would like to thank the participants who agreed to be part of this study. I could not have pursued my research passion without the many students and teachers involved, along with my principal, Dr. Jim Torkelson. Thank you for your wonderful support, encouragement, and data contribution.

To my doctoral advisor, Dr. Shelby Barrentine, I met you 14 years ago when I first attended UND as an undergraduate student. Since then, I have had the opportunity to attend your classes as part of my undergraduate and graduate studies. You have greatly contributed to my passion for both education and literacy. I still have the email I received from you 6 years ago, when you asked me if I was interested in teaching a literacy course on campus. My passion for teaching at the university level began with that email and was a major reason I pursued this degree. Your mentorship and encouragement made that the wonderful experience it was. I am grateful for the support, feedback, guidance, inspiration, and expertise I have continued to receive from you as my doctoral advisor. You have always made me feel that I have something to contribute, and I am greatly indebted to you. Thank you!

To my committee, Dr. Pamela Beck, Dr. Mark Guy, and Dr. Robert Stupnisky – you have all significantly contributed in different ways to my educational experiences at the University of North Dakota. Therefore, I was grateful to have each and every one of you as part of my dissertation team. I continue to be amazed at the amount of wisdom you all bring to the Education Department. Your knowledge, support, guidance, and recommendations are so appreciated! I would also like to thank Bill Siders – for your time and effort in assisting with my data analysis. I truly enjoyed my time with you and certainly learned a great deal!

To my friends, Sonja Brandt and Brittany Hagen – the day I approached you with this crazy idea to start a Ph.D. program on top of our full time jobs, you never hesitated to encourage me. I could not have asked for two better people to go through this journey with and can't imagine having done it without you. Thank you for sharing in my ups and downs, laughter, and tears. I will forever cherish our time spent together. I love you both!

To my family – it is difficult to find words to express the amount of gratitude I have. You have always instilled in me a passion for learning and reinforced the value of a quality education. Because of this, I always knew there was more I wanted to do with my education. Your support and numerous words of encouragement have always kept me going. I continue to be extremely grateful for the family I have been blessed with. Thank you for making me believe I can do anything I put my mind to, for always being there to cheer me on, and for being proud of me no matter what. I love you more than you will ever know!

To my husband, Brody – you have been nothing but supportive from Day 1. You truly have done everything in your power to make all other parts of my life easier so I could concentrate on my studies. Thank you for your continuous support and encouragement. You kept me going even on the days when it was so challenging. You are the best husband and friend I could ever ask for. I love you so much and will forever be grateful!

ABSTRACT

Background

Researchers have found that motivation has a significant positive effect on the success students experience in reading. A concern is that students are not finding reading pleasurable; and therefore, are not motivated to read. This, in turn, may be affecting their academic achievement in reading.

Aim

The purpose of this quantitative study was to investigate the relationship between a student's motivation to read and their academic achievement in reading. First, the level of elementary students' motivation to read, along with factors affecting this motivation were examined. Additionally, the relationship between a student's motivation to read and their academic achievement in reading was tested, along with grade and gender differences related to these relationships.

Method

The Reading Survey portion of Gambrell, Martin Palmer, Codling, and Anders Mazzoni's (1996) Motivation to Read Profile was used to assess 383 students from Grades 3-5 residing in a midwestern city. Students' Minnesota Comprehensive Assessment scores (Minnesota Department of Education, 2014a) and Fountas and Pinnell's Reading Benchmark Assessment levels (Fountas & Pinnell, 2008) were used to

measure reading achievement. As an additional measure, teacher rating scales were utilized to evaluate students' reading motivation and achievement levels.

Results

The Motivation to Read Profile (MRP) indicated that students displayed a high level of motivation to read. In addition, their levels of competence and value related to their reading motivation were comparable. Teacher ratings of student motivation displayed more varied responses related to their motivational levels. The analysis also showed positive correlations between a child's motivation to read and the following four factors: student choice, social interaction, teacher modeling, and home literacy. Results confirmed positive correlations between reading motivation and academic achievement in reading.

On average, girls displayed higher reading motivation and achievement than boys. Students from lower grade levels placed higher values on reading than older students. Third grade students displayed greater means than fourth grade students on the self-concept subscale. Students from higher grades displayed greater means related to how their teacher rated their reading motivation. In addition, fifth grade students on average displayed better reading achievement than third and fourth grade students.

In relation to the motivation scales (self-concept and value subscale from the MRP, along with the teacher rating scale of motivation), most gender and grade level groups significantly correlated with the three indices of achievement (with the exception of the value subscale).

Implications

Results have several implications for theory, research, and practice. First, this study expands the connection between the expectancy-value theory and reading by displaying the impact they have on one another. Second, it helps advance the methodology commonly utilized to examine these topics, as a combination of assessment techniques were included to measure reading motivation and achievement. The results of this study also have implications to help teachers and administrators make appropriate curricular and instructional decisions. Lastly, results may benefit education programs at the university level. By bridging the gap between theory and practice, pre-service teachers will be able to see how learned theories are applied in a classroom setting.

Keywords: reading, elementary students, reading motivation, reading achievement, reading strategies, expectancy-value theory

CHAPTER I

INTRODUCTION

Learning to read is an important landmark in the education of a child. Chapman, Tunmer, and Prochnow (2000) refer to reading as the most essential learning activity children engage in by stating, "The ability to read is the traditional criterion of beginning achievement and is basic to success in school" (p. 703). Students who acquire reading skills early on are at an extreme advantage, as success in reading provides various positive educational outcomes. For example, studies have suggested that children who experience success in reading are more likely to succeed in other school subject areas such as social studies, science, and mathematics (Valleley & Shriver, 2003). Students are also more likely to be actively engaged in the reading process when experiencing success in reading (Guthrie & Wigfield, 2000).

In addition, academic achievement in reading lays the foundation for future successes in secondary school and even career choices (Archambault, Eccles, & Vida, 2010). Research confirms a link between reading achievement and a likeliness to graduate from high school and attend college (Child Trends Data Bank, 2014). Also, as our society continues to evolve, the literacy demands on individuals seeking American occupations has continued to increase, and will probably continue to rise in the future (Barton, 2000). In an international statement on literacy, Moore, Bean, Birdyshaw, and Rycik (1999) claimed:

> Adolescents entering the adult world in the 21st century will read and write more than at any other time in human history. They will need advanced levels of literacy to perform their jobs, run their households, act as citizens, and conduct their personal lives. They will need literacy to cope with the flood of information they will find everywhere they turn. They will need literacy to feed their imaginations so they can create the world of the future. In a complex and sometimes even dangerous world, their ability to read will be crucial. (p. 3)

Therefore, incorporating effective reading strategies that will help promote academic achievement is at the heart of education and a central goal of educators (O'Flahavan et al., 1992). One common concern of teachers, however, is that no matter their instructional efforts, students continue to fall behind in the area of reading. A lack of motivation to read and the role it plays on achievement levels has been a frequently cited cause of this achievement gap.

Statement of the Problem

The Nation's Report Card (National Center for Education Statistics [NCES], 2011) recently stated that 66% of fourth grade American children are reading below a proficient level. According to this assessment, students reading below a proficient level are unable to effectively apply essential reading strategies such as integration, interpretation, application, evaluation, and drawing conclusions. In addition, eight million American students in Grades 4-12 struggle to read proficiently at their grade level (NCES, 2003). Not only are students underachieving in this subject area, but they are also unmotivated to read (Corcoran & Mamalakis, 2009). Unfortunately, by the time

they have cognitively developed to read complex texts, readers may already be behind in school due to this lack of motivation.

These achievement gaps in the area of reading have possible consequences influencing a student's academic experience well into their high school years. An estimated one million American students drop out of high school each year (Pinkus, 2006). Lacking appropriate literacy skills needed to participate in their curriculum is one frequently cited reason these dropouts fail to graduate (Snow & Biancarosa, 2003). Evidence such as this reveals success in reading plays a fundamental role in the academic achievement a student experiences throughout their educational career. Therefore, what causes some children to succeed early on in reading while others do not is a question that is crucial to understanding how to help underachievers.

Importance of the Study

According to Biancarosa and Snow (2004), "America's schools need to produce literate citizens who are prepared to compete in the global economy and who have the skills to pursue their own learning well beyond school" (p. 9). Investigating the predictors of success in reading is critical to improving academic achievement in schools. Current research reveals reading motivation plays a large role in the academic achievement a student experiences in this subject area (Cunningham & Stanovich, 1997; Gottfried, 1990; Guthrie, Schafer, & Huang, 2001). These findings suggest that if a child is not motivated to read, no matter the teacher's instructional efforts, their reading achievement is negatively affected. According to O'Flahavan et al. (1992), teachers cite student motivation as a main concern affecting many issues confronted in teaching. In

addition, results from a national survey (Gambrell, 1996) revealed that teachers would like to see reading motivation further researched in order to effectively support students in this area. Motivation is often the factor causing permanent learning to take place versus learning that is temporary and artificial (Oldfather, 1993). Applegate and Applegate (2010) contended motivation is a key factor in the overall success a student experiences in reading.

According to Torgesen et al. (2007), reading instruction is not stressed so much beginning in fourth grade as a larger focus is placed on learning specific content areas. Therefore, continued research, utilizing multiple forms of assessment techniques, is essential in order to understand and support students in reading at this age level (Gambrell, 2011).

Study Purpose and Research Questions

Investigating the predictive power of motivation on reading achievement can produce potential effects on long-term educational trajectories. The purpose of this quantitative study was to investigate the relationship between a student's motivation to read and their academic achievement in reading. First, the level of elementary students' motivation to read, along with factors affecting this motivation were examined. Additionally, the relationship between a student's motivation to read and their academic achievement in reading was tested, along with grade and gender differences related to these relationships. The following research questions guided this study:

1. What is the level of elementary students' motivation to read?
2. What are the key factors relating to elementary students' motivation to read?

3. What is the relationship between elementary students' motivation to read and their academic achievement in reading?

4a. Are there significant grade (third, fourth, and fifth) and gender differences in elementary students' motivation to read and their academic achievement in reading?

4b. Are there significant grade (third, fourth, and fifth) and gender differences in the relationship between elementary students' motivation to read and their academic achievement in reading?

Acronyms

ERAS – McKenna and Kear's (1990) Elementary Reading Attitude Survey is an instrument used to measure students' reading motivation. This instrument is cited in multiple studies included in the literature review.

MCA – The Minnesota Comprehensive Assessment data were gathered in order to measure reading achievement.

MRP – Gambrell, Martin Palmer, Codling, and Anders Mazzoni's (1996) Motivation to Read Profile was the instrument used to measure students' reading motivation.

MRQ – Wigfield and Guthrie's (1997) Motivation for Reading Questionnaire is an instrument used to measure students' reading motivation. This instrument is cited in multiple studies included in the literature review.

RBA – Fountas and Pinnell's (2008) Reading Benchmark Assessment data were gathered in order to measure reading achievement.

TRS – The Teacher Rating Scales were gathered to measure both reading

motivation and reading achievement.

Theoretical Framework

In order to better understand elementary students' reading motivation and achievement, the expectancy-value theory was utilized as a framework for research. This theory attempts to describe a person's motivation to complete a task (Eccles, 1983). With the possibility of more than one task, the chosen task will be the one with the greatest chance for success and the highest value.

Atkinson (1957) first introduced this idea as a way to better understand the achievement motivation of individuals. Although the expectancy-value theory has been applied to various fields, it is commonly implemented in the field of education. Atkinson believed that an individual's behavior is affected by both their expectancies and values.

Building on Atkinson's work, Jacquelynne Eccles (1983) expanded research in the area of expectancy-value theory by proposing that the achievement an individual experiences is determined by their expectancies of success and subjective task values. According to Eccles (1983), expectancy is defined by the amount of confidence an individual has to succeed at a particular task. For example, if an elementary student believes their performances on standardized tests tend to be poor, their expectations for success will be poor as well. This belief is posited to affect their actual performance on standardized tests. In addition, task value can be defined as the significance, practicality, and enjoyment an individual perceives a task to have. For example, a student who understands the importance of engaging in an activity and enjoys doing so will be more likely to take part in that activity.

Wigfield and Eccles' (2000) Expectancy-Value Model is commonly employed to

demonstrate the theory mentioned above; an individual's achievement related choices and performance is determined by two sets of beliefs: the individual's expectations for success and the value they place on that choice (see Figure 1). This theory is displayed on the far right side of the figure. In addition, the model includes supplementary factors related to these beliefs: cultural norms, experiences, aptitudes, and personal beliefs and attitudes. For the purpose of this study, the focus will be on the two main beliefs: expectation for success and subjective task value, and how those beliefs relate to achievement-related performance.

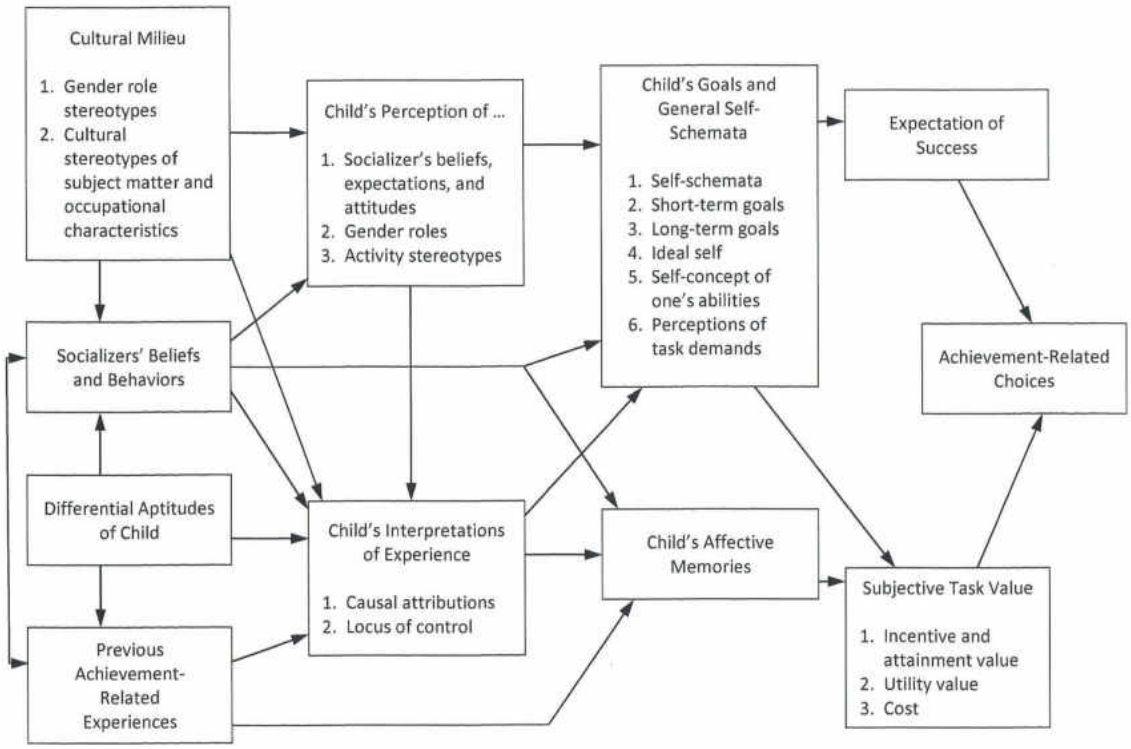


Figure 1. Eccles, Wigfield, and Colleagues' Expectancy-Value Theory Model of Achievement Motivation. Reprinted from "Expectancy-Value Theory of Achievement Motivation," by Wigfield and Eccles, 2000, *Journal of Contemporary Educational Psychology, 25,* p. 69.

Consistent with Atkinson's and Eccles' ideas, the goal of this study was to better understand a reader's motivation to complete a task, specifically the task of reading, along with the achievement they experience as a result of that motivation. Based on the theoretical aspects of motivation and reading in elementary schools, it is logical to argue that the expectancy-value theory and reading impact one another (Bembenutty, 2012). As stated previously, from the perspective of this theory, a learner's motivation is determined by how much value they place on a goal and their expectation to succeed (Eccles, 1983). On the one hand, if a student's value and expectancy to succeed in reading is minimal, their motivation and achievement in reading will be as well. On the other hand, when a student values reading and expects to succeed at it, there is a greater chance they will be motivated to do so, positively affecting their reading achievement. According to Gambrell (1996), students who see themselves as competent and successful readers will likely be more motivated to read and outperform students who do not possess the same beliefs about themselves. As the expectancy-value theory suggests, in order for students to value the experience of reading, they need to be motivated to do so. This in turn will affect their academic success in this area.

Past research utilizing this theory suggests that the interaction between expectancies and values produces positive motivational results (Applegate & Applegate, 2010). In order to assess a student's motivation to read, Gambrell et al. (1996) developed the Motivation to Read Profile (MRP). This profile is designed around the expectancy-value theory, and therefore evaluates a student's self-concept as a reader along with the value they place on this task. This assessment tool has proved to be a valid and reliable instrument to assess reading motivation. Applegate and Applegate (2010) administered

the MRP to 443 elementary students, Grades 2-6, in order to examine students' level of motivation to read. Edmunds and Bauserman (2006) utilized the MRP to study 16 fourth grade students selected from an original pool of 91. In order to tailor their study towards secondary students, Pitcher et al. (2007) administered a revised version of the MRP to 384 adolescents. Kelley and Decker (2009) also administered an adapted version of the MRP in order to survey 1,080 sixth through eighth grade students. Throughout these studies varying degrees of reading motivation were identified and explored. In addition, past empirical studies utilizing a motivation tool in relation to reading achievement have discovered a positive correlation between motivation and achievement (Baker & Wigfield, 1999; Wang & Guthrie, 2004). Students with higher scores on motivation surveys demonstrated greater levels of achievement in the area of reading.

In order to extend previous research regarding elementary students' motivation to read, the researcher conducted the first phase of this study in April of 2014. The study was designed around the expectancy-value theory, and the MRP (Gambrell et al., 1996) was administered to 383 elementary students (Grades 3-5) as a way of measuring reading motivation. In addition, classroom teachers completed a teacher rating scale (TRS) evaluating students' reading motivation and achievement levels in relation to their peers. Data were collected in compliance with Institutional Review Board specifications. The MRP was the only data analyzed at this time. Although the analysis did confirm that reading motivations differed between students, additional data analysis of the MRP was needed to further understand the results. Therefore, phase one of the study simply served as an opportunity for the researcher to become familiar with the research tool, the MRP.

Data collection and analysis of the second phase of this study took place in

January of 2015. It used the data collected during phase one and collected additional data. Students who participated in phase one provided the additional data for the second phase of this study. Two additional pieces of data were collected in order to measure students' academic achievement in reading: The Minnesota Comprehensive Reading Assessment (MCA) and the Fountas and Pinnell Reading Benchmark Assessment (RBA). The MCA and RBA were completed within the same few weeks that phase one assessments were completed. However, phase two assessment data were not collected and analyzed until January of 2015. Therefore, all phase one (MRP and TRS of motivation and achievement) and phase two (MCA and RBA) data were analyzed together in January of 2015. Figure 2 displays study components for the research in this report (phase one and two), including main beliefs taken from Wigfield and Eccles' (2000) Expectancy-Value Model.

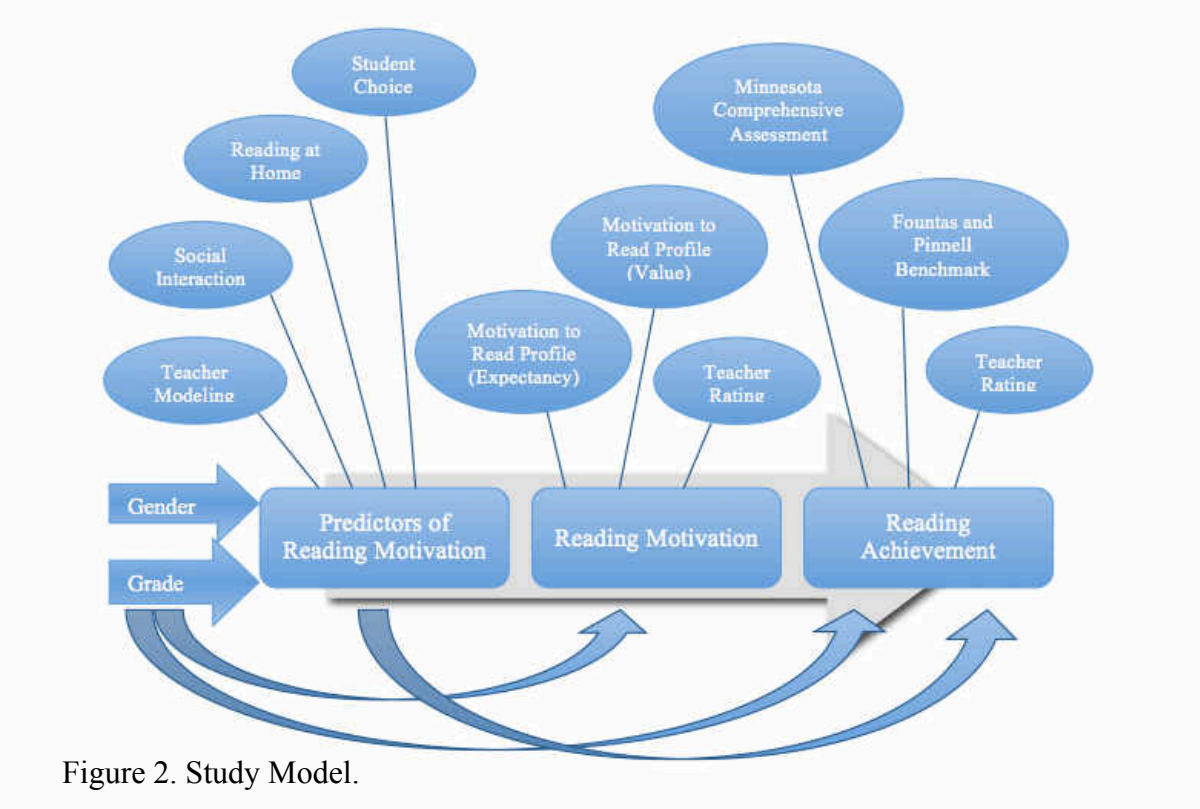


Figure 2. Study Model.

Limitations

The present study contained multiple attributes that enhanced the validity of findings including using: an established measure (MRP), a large sample size, and an established theoretical framework (the expectancy-value theory). It also contained several limitations that should be considered. One limitation of this study is the reliability of student self-report responses. Due to the age of participants, they may have less understanding of their motivations than older participants would have had. It is important to ensure that students' thoughts regarding reading are as accurate as possible. Since classroom teachers know their students best, they administered the survey to their classes. They had a better idea of how to best explain directions and survey questions to students in a way their students would understand than the researcher would have. Also, with the sample coming from one school, the generalizability of findings is limited. Future studies investigating participants from multiple locations would reveal if findings remain the same.

A second limitation relates to achievement data. This current study utilized a standardized measure of reading achievement as one method of data collection. This assessment provides one overall score for each student's reading proficiency level and therefore, does not illustrate a breakdown of reading achievement by specific standards. Single level achievement tests may provide limited evidence of student proficiency. Therefore, if used as the only method measuring reading achievement, there is a chance for measurement error. In this study, additional measures of achievement data were collected in order to support the results taken from this single assessment tool.

Another limitation pertains to a biased perspective affecting the teacher rating scales of student reading motivation and achievement, along with the reading benchmark assessment. It is possible that a teacher's general opinion of a student may distort their ability to properly score them. For example, if a teacher's general impression of a student is positive, the student may receive higher ratings than an objective evaluation would rate them. In order to ensure that ratings demonstrate valid and reliable results, teachers were trained on how to effectively complete these scales and benchmark assessments.

It is possible that teachers may also avoid extreme scores (very low and high) when rating their students, resulting in a pile up towards the middle. Despite specific protocols, there is a potential level of subjectivity when utilizing tools that incorporate teacher judgment. Although these data collection methods are valuable, they are most useful when paired with additional techniques. Collecting supplementary forms of motivation and achievement data helped confirm the results of this method.

Organization of the Study

This report is organized into five chapters: introduction, literature review, methodology, results, and discussion. Chapter I provided the background of the problem, while outlining the significance and purpose of the study. Chapter II provides a review of literature related to the expectancy-value theory, reading motivation, and academic achievement in the area of reading. Chapter III examines the study design, along with the methods and procedures used to collect and analyze the data. Chapter IV includes an analysis of data and a presentation of results. Lastly, Chapter V contains a summary of the research, implications, and future directions.

CHAPTER II

LITERATURE REVIEW

The purpose of this quantitative study was to investigate the relationship between a student's motivation to read and their academic achievement in reading. The following literature review begins by examining the main components of the expectancy-value theory and its relation to past empirical research. Second, literature related to reading motivation, specifically grade and gender differences, along with factors affecting reading motivation is discussed. Next is a concentration on reading achievement, again focusing on grade and gender differences. The literature review concludes with motivation and academic achievement in reading examined together.

Expectancy-Value Theory

Numerous theories exist attempting to describe the achievement motivations of individuals. As mentioned previously, Atkinson (1957) developed the expectancy-value theory. This theory states that an individual's behavior is affected by both their expectancies and values. Eccles (1983) later expanded research on this theory by proposing that an individual's expectations to succeed and subjective task values determine their achievement related choices. Expectancy is defined as the amount of confidence an individual has to succeed at a particular task (Eccles, 1983). In addition, task value can be defined as the significance, practicality, and enjoyment an individual perceives a task to hold. One major contribution to the expectancy-value theory, made by

Eccles, was the establishment of subjective task value subcategories. According to Eccles (1983), the value an individual places on a task is determined by four main motivational constructs: intrinsic value, attainment value, utility value, and cost value.

Subjective Task Value Constructs

Intrinsic value. Intrinsic value refers to the interest or enjoyment an individual experiences when participating in a task. For example, a student is more likely to take part in the task of reading if they are interested in reading and enjoy this subject.

Attainment value. Attainment value is defined by the relationship between an individual's self image and the task they are taking part in. There is a greater chance individuals will value a task they feel reflects who they are or would like to be. If becoming a proficient reader is a significant part of a student's self-image, it is likely they will value reading and invest time into becoming a stronger reader. Intrinsic and attainment value closely relate to each other as they both contain intrinsic components that help motivate an individual to take part in a task.

Utility value. Utility value is a third construct and contains both intrinsic and extrinsic components. This refers to the practicality or significance of taking part in a task. If the task aligns with the individual's long or short term goals, their value and motivation for that task will likely be high. For example, if a student plans to attend college in the future, then becoming a proficient reader in school may have high utility value. The student will then be more likely to value reading, motivating them to take part in that activity.

Cost value. Cost value is the last construct and refers to the price of taking part in a task. Factors such as time, success or failure, demands, stress, acceptance or

rejection, and anxiety all influence an individual's decision to value a particular task. For example, if reading is socially acceptable by peers, there is a greater chance a student will value this activity and be motivated to read.

Expectancy-Value Theory and Elementary Students

Past empirical work provides support for the expectancy-value theory, suggesting that even at a young age, students begin to differentiate their expectancies and values across school subjects, including reading. Eccles, Wigfield, Harold, and Blumenfeld (1993) applied the expectancy-value framework to elementary children (Grades 1, 2, and 4) by examining their competence and subjective task value beliefs in different subjects (reading, math, sports, and music) to see whether they were distinct and measurable. The goal was to test the theory, not to conduct specific research related to subject domains. A total of 865 elementary students completed a questionnaire regarding their expectancies and competence perceptions, along with their value beliefs related to each subject. A confirmatory factor model was used to compare the expectancy and value components for each subject by first loading both components from all subjects together as one factor. Next, expectancy and value were loaded separately, and each subject was analyzed on its own in order to see which method presented a better fit.

First, results confirmed that the model where expectancy and subjective task value were loaded as separate factors for each subject significantly presented a better fit than when they were all loaded as one factor. These results suggest that even elementary age children are able to distinguish between what they are good at and what they value. For example, a student may see value in the task of reading but have low expectations to succeed in this area.

Secondly, each subject domain formed distinct separate factors, suggesting that elementary age children are able to differentiate their expectancy beliefs and subjective task values for each subject. For example, a student may have high expectations and values for the subject of reading, but very different beliefs and values about math. Findings also confirm that these two constructs can be reliably measured even at a young age.

These results support the expectancy-value theory, highlighting the possible impact it has on a student's choice and behavior for different subjects. It also reinforces the importance of examining subject specific motivations such as reading, and the influence it has on achievement in that area.

Expectancy-Value Theory and Reading

As stated earlier, Gambrell, Martin Palmer, Codling, and Anders Mazzoni's (1996) Motivation to Read Profile (MRP) is one tool commonly used to measure elementary reading motivation (Applegate & Applegate, 2010; Edmunds & Bauserman, 2006; Kelley & Decker, 2009; Pitcher et al., 2007) and is designed around the expectancy-value theory. Half the questions on the survey relate to a reader's self-perceived competence or expectancy to succeed and half determine the value students place on reading tasks and activities (see Appendix A). In addition, the MRP measures each subjective task value subcategory mentioned previously: intrinsic value, attainment value, utility value, and cost value (see Appendix A). This is important because having a high value for one subcategory but not the others may affect a student's overall value and deter their motivation.

Past investigations utilizing this theory in relation to reading suggest an interaction exists between expectancies and values and academic achievement. Research supporting Eccles' (1983) expectancy component have found a correlation between students who feel they are competent readers and greater reading achievement levels (Smith, Smith, Gilmore, & Jameson, 2012; Wigfield & Guthrie, 1997). Additional studies supporting Eccles' (1983) value component propose that students who value the task of reading achieve more than students who do not (Sweet, Guthrie, & Ng, 1998; Wigfield & Guthrie, 1997).

Reading Motivation

The motivation to read can be defined as "the individual's personal goals, values, and beliefs, with regard to the topics, processes, and outcomes of reading" (Guthrie & Wigfield, 2000, p. 405). According to Mata (2011), a child's knowledge of literacy develops at a very young age, even prior to starting school; therefore, their motivation to read naturally begins to develop early on as well. In recent research with elementary students (Grades 1-3), Guay et al. (2010) identified differences in domain-specific motivations, or motivations focusing on a particular subject area (see also Gottfried, 1990). Findings from this study suggest that as students mature and become more experienced with reading, motivation differentiation will become more distinct, reinforcing the importance of considering domain-specific motivations such as reading. In an attempt to support positive reading habits and a desire to read, researching motivation in this subject is crucial. "Without motivation, even the brightest student may learn little in the classroom and will not become engaged in classroom activities" (Wigfield & McCann, 1996-1997, p. 360).

Aspects of Reading Motivation

Extrinsic and intrinsic motivations are two fundamental distinctions common in motivational research (Deci & Ryan, 1985). These types of motivation have become an important topic in the field of education as they impact the degree of success students experience in school. More specifically, extrinsic and intrinsic motivations impact a student's motivation to read, along with their academic success in this area (Baker & Wigfield, 1999; Marinak & Gambrell, 2008; Becker, McElvany, & Kortenbruck, 2010). Throughout the school day students are exposed to a variety of motivational reading techniques and strategies. Some clearly relate to the construct of intrinsic motivation and some to extrinsic motivation.

Intrinsic motivation. Intrinsic motivation is the desire to engage in a behavior purely for enjoyment, challenge, or interest (Deci & Ryan, 2002). In addition, Guthrie and Wigfield (2000) have defined intrinsic reading motivation as the act of reading purely due to the enjoyment of the activity. Taking part in an activity that is intrinsically motivating is followed by positive feelings and perceived as extremely gratifying (Deci & Ryan, 1985). According to Becker et al. (2010) examples of intrinsic reading motivation include valuing the importance of reading, viewing books as a form of enjoyment, possessing an interest in the subjects covered in the reading material, and feeling as if reading is a positive experience.

Marinak and Gambrell (2008) stated that students are more likely to engage in a task if they are intrinsically motivated. Further, if a student is intrinsically motivated to read, their chances for experiencing academic success are greater. Several empirical

studies have found a positive effect of intrinsic motivation on reading motivation and achievement (Baker & Wigfield, 1999; Becker et al., 2010; Gottfried, Fleming, & Gottfried, 2001; Marinak & Gambrell, 2008; Wang & Guthrie, 2004). "Without the intrinsic motivation to read, students may never reach their full potential as literacy learners" (Marinak & Gambrell, 2008, p. 9).

Extrinsic motivation. Extrinsic motivation is the desire to engage in a behavior for external recognition or tangible benefits (Eccles & Wigfield, 2002). In addition, extrinsic reading motivation is the aspiration to read for outside acknowledgment or rewards (Guthrie & Wigfield, 2000). Students who engage in reading to receive an expected grade or certificate are considered externally motivated. The role of external sources and motives vary depending on the age group (Becker et al., 2010). Older students may be extrinsically motivated to read due to peers and grades, where parents and rewards may influence younger students.

Empirical studies have found a negative effect of extrinsic motivation on reading motivation and achievement (Becker et al., 2010; Wang & Guthrie, 2004), with high extrinsic motivation relating to lower achievement. The negative effects of extrinsic motivation on reading have threatening consequences such as poorer reading skills and reading avoidance. In addition, research suggests that children who are extrinsically motivated spend less time and energy understanding texts resulting in lower comprehension levels (Wigfield, 2000). When a student becomes progressively more dependent on rewards and recognitions in order to read, they run the risk of never

reaching their full potential as external rewards does not support increased achievement over time (Becker et al., 2010).

Reading Motivation Measurements

Past research has utilized various instruments in order to measure students' reading motivation (see Table 1). Because intrinsic motivation has been found to positively impact a student's overall reading motivation and achievement (and extrinisic motivation has not), most instruments for measuring reading motivation focus primarily on the intrinsic component of motivation.

Table 1. Motivational Measures.

Authors	Measure
Kush & Watkins (1996)	Elementary Reading Attitude Survey
Applegate & Applegate (2010)	Motivation to Read Profile (survey portion)
Edmunds & Bauserman (2006)	Motivation to Read Profile (conversational interview portion)
Gambrell et al. (1996)	Motivation to Read Profile (survey and conversational interview)
Marinak & Gambrell (2010)	Motivation to Read Profile (survey portion)
Baker & Wigfield (1999)	Motivation for Reading Questionnaire
Wigfield & Guthrie (1997)	Motivation for Reading Questionnaire
Corcoran & Mamalakis (2009)	Survey examined the perceptions of students towards reading.
Eccles et al. (1993)	Survey examined reading competence and value beliefs.
Jacobs, Lanza, Osgood, Eccles, & Wigfield (2002)	Survey examined perceptions of reading self-competence and task values.
Smith et al. (2012)	Survey examined reading enjoyment and self-efficacy.

A brief summary is provided below regarding the instruments most commonly used in the studies cited in this literature review: The Elementary Reading Attitude Survey (ERAS; McKenna & Kear, 1990), the MRP (Gambrell et al., 1996), and the Motivation for Reading Questionnaire (MRQ; Wigfield & Guthrie, 1997).

The Elementary Reading Attitude Survey (ERAS). McKenna and Kear (1990) developed the ERAS to assess elementary students' (Grades 1-6) attitudes towards reading. The survey is made up of 20 items, and each item consists of a 4-point Likert type response scale. Each item provides a short statement regarding reading, followed by four pictures of the comic strip character Garfield the Cat in various positions ranging from very happy to very upset. Students are asked to read each statement and circle one of the four Garfield poses that most closely resembles how they feel about that statement. Half of the questions determine a reader's attitude toward recreational reading (reading outside of school). A sample item includes: "How do you feel about reading for fun at home?" The second half of the questions determines a reader's attitude towards academic reading (reading aloud in class, reading workbooks, worksheets, and reading schoolbooks). A sample item includes: "How do you feel when the teacher asks you questions about what you read?" This survey was initially administered to over 18,000 students (Grades 1-6). The large sample helped establish internal consistency as it directly relates to a student's attitude towards reading (Kush & Watkins, 1996). The ERAS is also found to have adequate reliability (Cronbach's α ranging from .74 to .89). An instrument (like the ERAS) is considered reliable if it produces similar results under consistent conditions. Cronbach's α mathematically measures the reliability of an

instrument. The closer the Cronbach's α of a particular instrument is to 1.00, the more reliable the instrument is considered to be (Field, 2013).

The Motivation to Read Profile (MRP). As stated previously, Gambrell et al. (1996) created the MRP in order to assess the reading motivation of students (Grades 2-6). The original 20 item, 4-point Likert type response scale measured a reader's self-perceived competence, along with the value they place on reading (for examples of questions from the MRP, see Appendix B). The MRP was initially administered to 330 students (Grades 3-5) and was found to have sufficient reliability (Cronbach's $\alpha = 0.75$ for self-efficacy and 0.82 for value), along with construct validity as it directly measures motivation and reading (Applegate & Applegate, 2010). Construct validity refers to the ability of a test to measure the particular construct it claims to be measuring (Trochim, 2006).

Gambrell et al. (1996) developed a follow-up to the original 20-item MRP, a conversational interview as an optional addition to the MRP survey. A total of 48 students (Grades 3 and 5) participated in the field-testing of this conversational interview. This follow-up interview consists of 14 questions pertaining to motivational factors related to reading narrative text, expository text, and reading in general. The open-ended free response questions have been designed to create an informal conversation between a student and their teacher.

In order to create the MRP, Gambrell and colleagues (1996) reviewed earlier instruments used to assess reading motivation and attitudes toward reading. McKenna and Kear's (1990) ERAS was one of the existing instruments examined.

The Motivation for Reading Questionnaire (MRQ). Wigfield and Guthrie (1997) developed the MRQ. In order to develop this instrument, Wigfield and Guthrie researched both general motivation and reading motivation, including McKenna and Kear's (1990) ERAS. The MRQ's 54 item, 4-point Likert type response scale is intended to be administered to students in upper elementary and middle school. Wigfield and Guthrie initially administered this instrument to 105 students (Grades 4 and 5). Eleven separate aspects were used to assess reading motivation: reading efficacy, reading challenge, reading curiosity, aesthetic enjoyment of reading, importance of reading, compliance, reading recognition, reading for grades, social reasons for reading, reading competition, and reading work avoidance. A sample item from the MRQ, along with possible responses is as follows: "Knowing how to read well is _____"

a. not very important

b. sort of important

c. important

d. very important

This item from the MRQ is included in the survey in order to examine the factor "importance of reading." Wigfield and Guthrie's intention was to administer this instrument to students in the fall and spring in order to assess changes in reading motivation across a school year.

Summary. Instruments such as the ones mentioned above include numerous aspects of reading motivation: intrinsic and extrinsic motivation, reading attitude, self-competence and value, reading efficacy, reading challenge, reading curiosity, aesthetic enjoyment of reading, importance of reading, compliance, reading recognition, reading

for grades, social reasons for reading, reading competition, and reading work avoidance.

Various studies have assessed these aspects in order to better understand elementary reading motivation. Baker and Wigfield (1999), along with Wigfield and Guthrie (1997) used the MRQ (Wigfield & Guthrie, 1997) to examine possible aspects related to a student's motivation to read. Results revealed a positive correlation between a student's motivation to read and all 11 aspects included in the MRQ measure (as listed previously in the section describing the MRQ). Additional research assessing other aspects of reading motivation mentioned above have also found positive correlations to students' reading motivation levels (Chapman et al., 2000; Gambrell et al., 1996; McKenna, Kear, & Ellsworth, 1995). This suggests that reading motivation is indeed multifaceted with many dimensions contributing to a student's overall reading motivation level.

General Studies in Elementary Reading Motivation

Researchers have utilized various instruments, including the ones mentioned in the previous section, to examine levels of elementary students' motivation to read. For example, Corcoran and Mamalakis (2009) examined fifth grade students' reading attitudes and found that an alarming 85% of their participants were unmotivated to read. In addition, the majority of students emphasized the importance of being a good reader; however, very few presented an interest in reading.

Gambrell et al. (1996) administered the MRP to third through fifth grade students and found that 47% reported they did not consider themselves competent readers. Results also revealed that although students valued the task of reading, they did not consider it engaging or view it as high priority. One question found that almost 20% of

students would prefer to clean their room to reading. When administering the same instrument to elementary students, Applegate and Applegate (2010) found that a greater number of points came from the competence beliefs of readers than the value they placed on reading, suggesting that students viewed themselves as proficient readers, but saw less value in the task of reading than their abilities would suggest. In other words, they were more proficient at reading than they should have been if they truly felt reading had as low a value to them as they indicated by their responses on the survey. Results from these studies confirm that a student's motivation to read seems to be a concern during the later elementary years. Other studies have discovered low levels of reading motivations from students at this age also (Kush & Watkins, 1996).

Grade Level Differences in Elementary Reading Motivation

Based on their motivational research, Mata (2011) and Patrick, Mantzicopoulos, Samarapungavan, and French (2008) suggested most children enter school eager to learn, optimistic about their competence, expecting to succeed, and specifically having a high motivation for reading. However, research has revealed as a child gets older, their motivation to read begins to decrease. In a 6-year longitudinal study, Jacobs et al. (2002) examined 761 students (Grades 1-12). Consistent with the expectancy-value theory (Atkinson, 1957; Eccles, 1983), students completed a questionnaire each spring measuring their perceptions of self-competence and task values in reading. Results revealed a decline in both competence and task value beliefs with age, with a stronger decline related to value. In other words, as students get older, they may still see some value in reading, but lack confidence in their reading ability. This may be due to the fact

that as students progress, they begin to form a more realistic view of their actual competence related to subject domains such as reading.

Applegate and Applegate's (2010) results revealed similar findings, as a correlation was found between age and a student's value for reading. A total of 443 elementary students (Grades 2-6) completed the MRP (Gambrell et al., 1996) in order to assess reading motivation. Findings confirmed that as students progressed in grade level, their value for reading significantly declined. According to Eccles' (1983) expectancy-value theory, in order for students to be motivated, they need to see value in reading and expect to succeed. A lack in either component has the potential to greatly affect their overall motivation to read.

Given that early motivations in reading may have ramifications on future achievements, research in this area has increased in recent years. Research with elementary students reinforces that students' motivation decreases with age (Kush & Watkins, 1996; Smith et al., 2012; Wigfield & Guthrie, 1997). The reason behind this phenomenon has been debated. Chall's (1983) model of reading development illustrates that as students move through elementary school, they are required to make a shift from learning to read to reading to learn. This stage requires students to apply their reading ability in order to comprehend more challenging texts. This has the potential to affect their pleasure for reading and motivation level. Guthrie and Wigfield (2000) also offered a possible explanation stating that as students age, their awareness of their own reading capabilities in comparison to their peers becomes more clear and accurate. If students do not believe they are as capable as their peers, their motivation to read may be affected.

Gender Differences in Elementary Reading Motivation

With the belief that reading is an essential part of day-to-day activities, helping both boys and girls become motivated readers is an important goal of educators. A major concern today is that a gender gap exists related to motivational reading levels. Studies have confirmed that boys and girls demonstrate very different levels of motivation towards reading. Boys, in general, are less motivated to read than girls. However, a great deal of past research related to this topic has only focused on adolescent readers (Kelley & Decker, 2009; Pitcher et al., 2007). Due to the gender gap concern, similar research has expanded to younger ages, revealing that gender differences in reading motivations are also present in elementary students (Baker & Wigfield, 1999; Corcoran & Mamalakis, 2009; Kush & Watkins, 1996; Smith et al., 2012; Wigfield & Guthrie, 1997).

Consistent with the expectancy-value theory, Eccles et al. (1993) surveyed 865 second and fourth grade students in order to examine their self-competence and task values in reading. Results revealed a statistically significant difference in reading motivation, as girls displayed higher levels of both competence and value beliefs related to reading than boys. Findings of Jacobs et al. (2002) also supported this relationship between gender and reading motivation. Jacobs et al. suggested that girls feel they are stronger readers and value reading more than boys. Therefore, their overall motivation level is greater.

In recent research with third grade students, Marinak and Gambrell (2010) administered the MRP (Gambrell et al., 1996) and also found a gender gap in reading. However, results revealed no significant difference in their self-confidence as a reader,

but girls valued reading more than boys. Applegate and Applegate (2010) also utilized the MRP to study elementary children and found similar results – the girls' total motivation and value for reading was greater than the boys, but not their self-concept. In other words, boys' lower levels of reading motivation related to the value they placed on reading.

One explanation for this gender gap is possible stereotypical gender roles still present in classrooms today. Research suggests that each gender has a set of beliefs and behaviors for certain school subjects that affect their motivation levels. For example, studies have found that boys report greater levels of motivation in the areas of mathematics and science, and girls, in reading and writing (Jacobs et al., 2002; Meece, Glienke, & Burg, 2006).

The elementary gender gap in reading implies that girls may be at an extreme academic advantage very early on as research has found positive correlations between reading motivation and achievement (De Naeghel, Van Keer, Vansteenkiste, & Rosseel, 2012; Gottfried, 1990; Guthrie et al., 2001; Guthrie et al., 2006; Guthrie et al., 2007; Logan et al., 2011; Park, 2011; Wang & Guthrie, 2004). Therefore, gender differences related to reading motivation should continue to be investigated. The findings may provide a better understanding of what motivates boys to read, helping teachers create meaningful instructional experiences specifically for them.

Factors Affecting Reading Motivation

In an attempt to discover the key factors motivating students to read, Applegate and Applegate (2010), and Edmunds and Bauserman (2006) administered a portion of the MRP (Gambrell et al., 1996) to elementary students. Throughout these studies, specific

themes describing influences on motivation were identified: student choice, social interaction, teacher modeling, and incorporating reading at home. These themes continued to emerge in research as factors contributing to a student's reading motivation (Corcoran & Mamalakis, 2009; Gambrell et al., 1996; McKool, 2007; Pitcher et al., 2007; Policastro, Mazeski, & McTague, 2010; Ülper, 2011).

Student choice. Based on compiled research, Allington and Gabriel (2012) and Gambrell (2011) outlined essential elements of instruction in order to motivate students to read. Student choice was identified as a critical factor contributing to student motivation. Research suggests that with so many levels and interests in one classroom, having a single basic text as the main reading instrument does not satisfy the diverse needs of students. Pitcher et al. (2007) suggested students who are given choice are more motivated to read than when books are chosen for them. Exposure to a variety of print, such as newspapers and magazines in addition to books, is important in order for students to choose material that is appropriate. Through a wide range of content, students should better be able to embrace the value of reading. When students understand they have control of their learning, their motivation increases (Edmunds & Bauserman, 2006).

The literature also indicated that a variety of reading material needs to be available to children. According to Edmunds and Bauserman (2006), having access to an assortment of reading material is essential for reading to take place. In their study (Edmunds & Bauserman, 2006), 16 elementary students were interviewed regarding their motivation to read. The conversational portion of the MRP (Gambrell et al., 1996) was the instrument used to interview these students. Findings revealed that a child's motivation to read is greatly influenced by their individual interests. Students felt it was

important to choose books that made them excited to read. In order for all students to experience success and grow to value reading, providing texts of interest to children, at different levels, along with exposure to an array of print is important.

Social interaction. As stated previously, Edmunds and Bauserman (2006) administered the conversational portion of the MRP (Gambrell et al., 1996) to 16 elementary age students to better understand what motivates them to read. Social interaction was one factor students expressed as contributing to their reading motivation. Students responded that socially interacting with peers regarding interesting books in the form of both formal (book reports) and informal discussions was the most common technique of finding books that motivated them to read.

According to Gambrell (2011), social interaction is defined as the communication that takes place with others. Communication about literature can be in the form of a discussion or writing. Research suggests multiple ways that social interaction can take place: literature circles, book talks, reading together, writing about books, and sharing books. These interactions hold a variety of benefits for the readers involved (Edmunds & Bauserman, 2006; Gambrell, 1996; Gambrell, 2011). Presenting students with multiple opportunities to interact and observe while they and others read, will pique their interest. It will also increase further confidence in their ability to read (Brozo & Flynt, 2008; Edmunds & Bauserman, 2006).

Teacher modeling. Another theme to emerge describing influences on reading motivation was the importance of teacher modeling **(**Edmunds & Bauserman, 2006; Ülper, 2011). In order to examine factors motivating students to read, Ülper administered a self-developed questionnaire to 782 students (Grades 4-12) and found that teachers

highly contributed to a student's willingness and motivation to read.

Demonstrating or modeling a desired behavior directly affects the behavior of children (Corcoran & Mamalakis, 2009). As shown in the literature, researchers have suggested that teachers play an active role in education by valuing and acknowledging the importance of reading (Ülper, 2011). Teachers can demonstrate how reading is valued by allowing students to experience reading material associated with enjoyment. Simply sharing with students the importance of reading has proven to increase motivation as well. Corcoran and Mamalakis (2009) surveyed 26 fifth grade students and found that 96% of them expressed their wish for teachers to discuss their reading interests with them more often. In addition, 88% of students expressed a desire for their teachers to read aloud to them daily.

In the study mentioned above by Edmunds and Bauserman (2006), conversational interviews with students also revealed the positive effect teachers have on a student's reading selection and motivation. For example, teachers were most commonly cited as the person who introduced books to the students. Students were also asked during the interview, "Who gets you excited about reading?" Results revealed teachers played a large role in their excitement about reading. Teachers are in a position to be positive models in the lives of students because they play an instrumental role in the learning process.

Incorporating reading at home. According to the literature, researchers have suggested that in order to support children's literacy development, everyone needs to be involved. Not surprisingly, the amount of time a child spends reading is directly related to reading success (McKool, 2007). Time spent reading at home is one of the strongest

and most positive factors related to the growth of a reader. As families' lives get busier, the amount of reading that takes place at home continues to decrease (Policastro et al., 2010). One study surveyed a random sample of 199 fifth grade students and found that on average, fifth grade students were spending 17 minutes a day reading voluntarily outside of school (McKool, 2007).

Parents and guardians are the first teachers of children and therefore play a vital role in helping them to value reading. Previously discussed factors (student choice, social interaction, teacher modeling) are also strategies families can implement at home. When students come from homes where reading for pleasure is modeled, there is a greater chance the child will choose to read for pleasure as well.

Summary. Upon reviewing the literature, key factors related to increasing reading motivation were discovered: student choice, social interaction, teacher modeling, and incorporating reading at home. Studies in the literature reinforced the point that teachers are not in the classroom simply to instruct students on what they need to be doing in their reading, but to guide them toward a better understanding of the literacy process. If teachers understand this process, the implication would be that children would embrace the value of reading and feel confident in their ability to read. Therefore, their motivation to read would increase.

Academic Achievement in Reading

Academic achievement in reading is founded on a student's ability to read proficiently (ability to demonstrate consistent and accurate skills needed to successfully interact with their grade level complexity in reading; Logan et al., 2011). However, measuring this achievement is multifaceted and often depends on the age level of the

student. As mentioned previously, Chall's (1983) model of reading development illustrates that as students move through elementary school, they are required to make a shift from learning to read to reading to learn. This stage requires students to apply their reading ability in order to comprehend more challenging texts. Readiness skills such as phonological and word-level awareness, and understanding concepts in print, are indicators students are reaching achievement in the early stages of literacy as students are still learning to read (Resnick & Hampton, 2009). These skills are prerequisites for achievement standards in the intermediate grades where students have now made the shift to reading to learn. Students at this age are now expected to read a range of materials in order to gain knowledge (Resnick & Hampton, 2009). Therefore, much research on reading achievement at the intermediate level (Grades 3-5) focuses on a student's ability to decode words, read fluently, and comprehend a text.

Students who read fluently are able to read smoothly and accurately without a great deal of hesitation. They are able to incorporate reading strategies such as decoding unfamiliar words. When students are able to decode words in a text, they are better able to comprehend or understand what they are reading (Fountas & Pinnell, 2006). These three skills are key elements in measuring a student's reading achievement in the upper elementary grades.

Achievement assessments can normally determine whether students' fluency and decoding skills may be affecting their ability to comprehend what they are reading. Research utilizes various types of assessments in order to measure student reading achievement: standardized, performance, and teacher ratings. The majority of these assessments require students to read a passage, decode words, and comprehend the text in

order to measure their level of reading proficiency.

Achievement Measurements

Assessment refers to "The process of gathering information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences" (Huba & Freed, 2000, p. 8). Past research has utilized several assessment techniques in order to measure students' reading achievement (see Table 2). A brief summary is provided below regarding the techniques most commonly used in studies cited in this literature review: standardized assessments, performance assessments, and teacher ratings.

Table 2. Assessment Techniques.

Authors	Assessment Technique
Baker & Wigfield (1999)	Standardized Assessment Performance Assessment
Gottfried (1990)	Standardized Assessment Performance Assessment Teacher Rating
Guthrie et al. (2006)	Standardized Assessment Performance Assessment Teacher Rating
Guthrie et al. (2007)	Standardized Assessment Performance Assessment
Guthrie, Shafer, & Huang (2001)	Performance Assessment
Logan, Medford, & Hughes (2011)	Standardized Assessment Performance Assessment
De Naeghel et al. (2012)	Standardized Assessment
Park (2011)	Performance Assessment
Phillips, Norris, Osmond, & Maynard (2002)	Standardized Assessment
Smith et al. (2012)	Performance Assessment
Wang & Guthrie (2004)	Performance Assessment Teacher Rating

Standardized assessments. Standardized assessment refers to an assessment performed under specified circumstances (Cooper, Robinson, Slansky, & Kiger, 2015). These assessments are usually in the form of multiple-choice questions and are administered to larger groups of students. They require that all students in the sample population answer the same questions so norms are present and comparisons can be made between individuals and groups. A standard or expected level of performance is previously determined in order for individual scores to express whether students performed better or worse than the standard (Cooper et al., 2015). While some consider testing with a standardized assessment a fair and objective way to measure achievement, others argue it is an incomplete picture of student success if used as the only type of indicator. Research on reading has utilized various standardized assessments as one type of method to measure reading achievement (Baker & Wigfield, 1999; De Naeghel et al., 2012; Gottfried, 1990; Guthrie et al., 2006; Guthrie et al., 2007; Lepper, Corpus, & Iyengar, 2005; Logan et al., 2011; Phillips et al., 2002).

One example of a common standardized reading assessment utilized in the research on reading achievement is the Gates-MacGinitie Standardized Reading Comprehension Test (Baker & Wigfield, 1999; Guthrie et al., 2006; Guthrie et al., 2007; Phillips et al., 2002). This multiple-choice assessment is timed and can be completed using paper and pencil or online. There are a total of ten tests in this assessment series designed for students starting in preschool all the way through to their adult years. Each subtest increases in difficulty and examines an individual's ability to decode vocabulary and comprehend texts. Scores determine if an individual is reading below, at, or above grade level. The purpose of the Gates-MacGinitie Reading Assessment is to identify an

individual's general level of reading achievement throughout their whole academic career (American Institutes for Research, n.d.).

Performance assessments. Performance assessment is another technique commonly used in research to gather information regarding reading achievement (Baker & Wigfield, 1999; Guthrie et al., 2001; Guthrie et al., 2006; Guthrie et al., 2007; Logan et al., 2011; Park, 2011; Smith et al., 2012; Wang & Guthrie, 2004). Performance assessments are utilized to measure students' reading skills by requiring students to actively demonstrate what they know (Cooper et al., 2015). Performance assessments are often individually administered and are completed using tasks such as activities and exercises. Examples of performance assessments in reading include reading benchmarks, miscue analyses, and running records. Results are used to determine individual and group strengths, along with areas needing improvement.

Various types of performance assessments were utilized in research cited in this dissertation in order to evaluate student abilities to comprehend text and identify vocabulary. Investigators developed some of the assessments, while others were used from previously established measures. Performance assessments were individually administered and required students read a selected text out loud and answer open-ended questions. Certain assessments also required students to write about what they learned in the text.

According to Cooper et al. (2015), performance assessments are authentic, as students are demonstrating their reading skills through real-world responses instead of by one standardized achievement score. Some would argue this method to be a more valid

indicator of academic achievement than standardized tests, as it provides a clearer picture of student learning.

Teacher ratings. In addition to standardized and performance assessments, teacher ratings are a third technique commonly used in research as a source for understanding reading achievement (Gottfried, 1990; Guthrie et al., 2006; Wang & Guthrie, 2004). Since classroom teachers know their students best, teacher ratings are generally viewed as a reliable method for measuring reading achievement.

A rating scale containing a continuum of numbers related to a variable is normally the instrument used to rate achievement level. Each number on the continuum represents a category between two extremes such as strongly agree to strongly disagree. The individual completing the rating scale simply circles or marks the number indicating their position on each item. Examples of teacher ratings from the research include Likert scales, teacher rubrics, and report cards. For example, Gottfried (1990) analyzed student report cards and found a correlation between teacher ratings and students' reading motivation levels. Guthrie et al. (2006) found similar results using a rubric as the form of a teacher rating.

Summary. According to Cooper et al. (2015), it is essential that when assessing achievement, teachers use a balance of different forms of assessments to accurately measure student achievement. Using multiple forms of assessments, such as the three techniques mentioned in this section, to test achievement in students provides a more accurate representation of a student's reading achievement than if only one form of assessment was used. Therefore, validity and reliability is potentially greater in research utilizing a combination of assessment techniques than in research utilizing only one

technique (Baker & Wigfield, 1999; Gottfried, 1990; Guthrie et al., 2006; Guthrie et al., 2007; Lepper et al., 2005; Logan et al., 2011; Wang & Guthrie, 2004).

Grade Level Differences in Elementary Reading Achievement

The National Assessment of Educational Progress (NAEP) is an assessment administered by the National Center for Education Statistics (NCES, 2011). The NCES, along with content specialists, educational experts, and teachers developed these common assessments as a way to measure student achievement. The purpose of this nationwide assessment is to examine student knowledge in various subject areas such as reading. The NAEP reading assessment measures reading comprehension as students respond to questions regarding both literary and informational texts. The NCES administers and scores the assessments, conducts analyses, and reports results. Results for each subject area are released in The Nation's Report Card and reported for a variety of demographic groups such as grade level, gender, socioeconomic status, and race/ethnicity. In this review, we will focus on grade level and gender.

NAEP data taken every other year from 1992 to 2011 examined the reading achievement levels of fourth and eighth grade students living in the United States. In the most recent study (2011) a total of 213,100 fourth grade students from 8,500 schools and 168,200 eighth grade students from 7,590 schools completed the reading standardized assessment. Student's reading comprehension was measured as they responded to questions related to both literary and informational grade level texts. Once the assessment was complete, students received an achievement score coinciding with one of three levels: basic, proficient, or advanced. Students reading at a basic level are considered able to partially master the essential skills required for proficient grade level

work. Students labeled as proficient or advanced are considered able to display solid or superior academic performance, respectively, as they are able to master the essential skills required for proficient grade level work (NCES, 2011).

According to the NCES (2011), an achievement gap occurs when one group of students within a subset significantly outperforms another. Based on their research related to reading achievement, an age gap appears to be present in 2011 data. Results reveal as a student gets older, their reading achievement in relation to grade level increases. Across all years studied, a larger percentage of eighth grade students were reading at a basic level or above compared to fourth grade students. Percentage of students reading at proficient or above were about the same for both age groups so no gap occurred at higher levels of proficiency. For example, in the most recent year (2011) a total of 34% of fourth grade students were labeled either proficient or advanced, while 33% of fourth graders were labeled basic. So, 33% of students were below basic. That same year, 34% of eighth grade students were labeled either proficient or advanced, while 42% were labeled basic. So 24% of eighth grade students were reading below the basic level, a much lower percentage than fourth graders reading below the basic level. The large sample size in this study allows for a solid response rate representing the population of students. Since data is taken from such a large sample size, differences in percentages represent a sizeable portion of students. Therefore, results confirm a greater percentage of older students are reading above grade level, than are fourth grade students.

Other studies, corroborated the NCES's (2011) reading achievement age gap. In recent research, Smith et al. (2012) studied a total of 960 students, ages 8 and 12. In order to measure reading achievement, students completed a performance assessment

comprised of eight reading tasks (reading fiction orally while the teacher records errors, reading silently and retelling fiction and non-fiction passages, reading and responding to poems, reading and responding to a passage, reading and responding to a passage comparing and contrasting two characters, reading and following directions on a computer, and responding to questions regarding descriptive cards). Results revealed that as students progressed with age, their reading achievement in relation to their grade level increased. Phillips et al. (2002) also examined the reading achievement of students, Grades 1-6. Students completed a standardized assessment, The Gates-MacGinitie Reading Test (American Institutes for Research, n.d.). In contrast to the two previous studies, results showed no systematic relationship between a student's age and their achievement level in reading. This corroborates results of students reading at proficient level or above in the NCES (2011) reading achievement test results. Results such as these empirical studies confirm a trend of outcomes exists related to age and reading achievement. Further research is needed to measure these effects and confirm these findings.

Gender Differences in Elementary Reading Achievement

Similar to reading motivation, there is a concern over a gender gap in the area of reading achievement, specifically the underachievement of boys. Research confirms a discrepancy exists between the reading achievement of elementary girls and boys, as girls are consistently higher achieving in this area. According to Connell and Gunzelmann (2004), by fourth grade, boys are developmentally behind girls in reading by 2 years. Additional research has also confirmed these differences in reading achievement in relation to gender (Guthrie et al., 2001; Phillips et al., 2002; Smith et al., 2012).

A study completed by the National Center for Educational Statistics contributed data regarding reading achievement differences related to gender. Results revealed that between the years of 1993-2003, fourth grade girls obtained higher levels of reading achievement (reading comprehension) than boys for each year (Freeman, 2004). In addition, similar results were present in a 2001 International Reading Study. A total of nine participating countries, including the United States, completed the Progress in International Reading Literacy Study (PIRLS), an assessment of reading comprehension used to monitor and compare student achievement trends (Freeman, 2004). Results confirmed that fourth grade girls significantly outperformed boys on this assessment. In particular, in the United States, girls scored an average of 18 points higher than boys (Freeman, 2004).

According to the Education Alliance (2007), "The preponderance of available evidence suggests that there is a crisis in terms of the literacy achievement of boys " (p. 9). Evidence such as the results mentioned above outlines the importance of examining these achievement differences in elementary boys and girls. According to Connell and Gunzelmann (2004), the cause of this gender gap is complex and includes a range of factors including societal expectations, stereotypes, ability, and learning differences.

Whatever the causes may be, results suggest that boys may be at an extreme disadvantage in reading, possibly affecting other school subjects and future educational experiences. Continued research regarding reading achievement levels for boys is needed in order to examine the reasoning behind these findings.

Reading Motivation and Academic Achievement in Reading

General Studies in Elementary Reading Motivation and Achievement

The academic achievement a student experiences in school typically originates from their level of reading proficiency, as other subjects are influenced by a student's literacy skills. Therefore, investigating factors affecting reading achievement is an important goal. Reading motivation is one factor that has been found to play an instrumental role in the academic success a student experiences in reading. Gottfried (1990) used teacher ratings of students' academic performances, standardized achievement scores, and report cards to find motivation for reading becomes related to reading achievement as early as age 7.

Findings from recent research also revealed a positive correlation between reading motivation and achievement as students move through elementary school. Researchers using various forms of the MRQ (Wigfield & Guthrie, 1997) have found that elementary students' (Grades 3-6) reading motivation positively correlates with several aspects of reading achievement including standardized reading assessments, performance assessments, and teacher ratings of student achievement (Baker & Wigfield, 1999; De Naeghel et al., 2012; Guthrie et al., 2006; Guthrie et al., 2007; Logan et al., 2011; Wang & Guthrie, 2004). Additional studies utilizing other forms of student motivation questionnaires have also found reading motivation to be a strong predictor of reading achievement (Guthrie et al., 2001; Park; 2011). Results such as these suggest that students with high levels of motivation in reading display similar achievement patterns; the more motivated a student is to read, the higher their achievement will be in this area.

Alternatively, students whose motivation to read is minimal will display lower levels of achievement.

Grade Level Differences in Elementary Reading Motivation and Achievement

As mentioned earlier, research related to reading motivation has revealed as a child gets older, their motivation to read begins to decrease (Applegate & Applegate, 2010; Jacobs et al., 2002; Kush & Watkins, 1996; Smith et al., 2012; Wigfield & Guthrie, 1997). In addition, research related to reading achievement reveals a variety of results. According to the NCES (2011), as a child gets older, their reading achievement in relation to grade level increases. Other researchers have either agreed with this conclusion or have found there is no relationship between achievement and grade level as a child gets older (Phillips et al., 2002; Smith et al., 2012).

Research related to the relationship between reading motivation and achievement has found positive correlations between the two across upper elementary grade levels: third grade (Gottfried, 1990; Guthrie et al., 2006), fourth grade (Gottfried, 1990; Guthrie et al., 2001; Guthrie et al., 2007; Logan et al., 2011; Park; 2011; Wang & Guthrie, 2004), and fifth grade (Baker & Wigfield, 1999; De Naeghel et al., 2012; Logan et al., 2011). These studies have used various forms of motivational measures including the ERAS (McKenna & Kear, 1990), the MRP (Gambrell et al., 1996), and the MRQ (Wigfield & Guthrie, 1997) to measure motivation, and reading achievement techniques (standardized assessments, performance assessments, and teacher ratings) to measure achievement. Although grade level research related to both reading motivation and achievement exists, few studies have compared specific grade levels in order to determine where differences exist concerning the relationship between motivation and achievement. For example, is

the relationship between reading motivation and achievement stronger in third grade than in fourth or fifth grade? If correlations prove to decline as a student progresses in age, these findings will provide data aiding researchers and instructors to focus solely on that age level, helping to create educational experiences specifically for them. Researching specific grade level relationships between student reading motivation and achievement has potential to impact available literature in this field of research and methods of teaching in this area.

Gender Differences in Elementary Reading Motivation and Achievement

Research related to reading motivation reveals a statistically significant difference in motivation to read related to gender, as girls display higher levels of motivation than boys (Applegate & Applegate, 2010; Baker & Wigfield, 1999; Corcoran & Mamalakis, 2009; Eccles et al., 1993; Jacobs et al., 2002; Kush & Watkins, 1996; Smith et al., 2012; Wigfield & Guthrie, 1997). In addition, research related to reading achievement reveals similar results, as girls' levels of achievement usually are higher than boys (Connell & Gunzelmann, 2004; Freeman, 2004; Guthrie et al., 2001; Phillips et al., 2002; Smith et al., 2012). Therefore, it is logical to argue this pattern would transfer to the relationship between reading motivation and achievement, and girls would exhibit a stronger correlation between motivation and achievement than boys.

Baker and Wigfield (1999) reported results related to gender when examining the relationship between reading motivation, self- reported reading activity (amount of time spent reading for fun), and reading achievement. A total of 192 fifth and sixth graders made up the sample population. Of the sample, 52% of the population consisted of girls and 48% consisted of boys. In order to measure reading motivation, the MRQ (Wigfield

& Guthrie, 1997) was administered. Two standardized assessments, along with a performance assessment were used to measure reading achievement: Gates-MacGinitie Reading Test (American Institutes for Research, n.d.), a district Comprehensive Test of Basic Skills, and a performance measure of reading developed by the publisher of the reading curriculum utilized. Data from the motivation scale was correlated with scores on the three achievement measures. Findings revealed the correlation between reading motivation and achievement was greater for girls than boys. In particular, the correlation between reading motivation and achievement on the performance assessment revealed a statistically significant positive correlation for girls and not boys.

Although this study found that the correlation between reading motivation and achievement was greater for girls than for boys in the sample population, there has been little empirical evidence supporting this finding and the reasoning behind it. Similar to grade level research, few studies have examined specific gender differences concerning the relationship between reading motivation and achievement. In order to improve reading instruction for both genders, there is a need for continued research on this topic. Perhaps the findings from research reported in this dissertation may provide a better understanding of what motivates boys and girls to read, helping teachers create meaningful instructional experiences specifically for each gender; and in turn, positively affect reading achievement of elementary students in general.

Synthesis of Findings from the Literature

The review of literature in this chapter presented several themes related to the research questions in this study. First, various theories and components exist attempting to describe an individual's motivation to complete a task. The expectancy-value theory

in particular (Atkinson, 1957; Eccles, 1983) states that in order for students to be motivated and succeed, they must possess the expectancy to succeed and value the task. Past research has utilized this theory to examine an elementary student's level of motivation to read (Applegate & Applegate, 2010; Edmunds & Bauserman, 2006; Gambrell et al., 1996). Results confirm that a student's motivation to read is somewhat concerning during later elementary years; research has discovered low levels of reading motivations from students at this age. However, inconsistencies exist regarding whether the competence or value component of the expectancy-value theory deters the level of motivation (Applegate & Applegate, 2010; Gambrell, 1996). Therefore, further research utilizing this theory and its two main components (competence and value) related to reading motivation is necessary.

The next theme regarding the research questions was grade and gender differences related to reading motivation. Research with elementary students reinforces that students' motivation decreases with age (Kush & Watkins, 1996; Smith et al., 2012; Wigfield & Guthrie, 1997). In addition, studies have confirmed that in general, boys are less motivated to read than girls (Baker & Wigfield, 1999; Corcoran & Mamalakis, 2009; Kush & Watkins, 1996; Smith et al., 2012; Wigfield & Guthrie, 1997). Similar to motivation, grade and gender differences related to the expectancy-value theory and its main components (competence and value) should be investigated to identify where discrepancies exist.

Specific factors contributing to a student's reading motivation were also identified in the literature review: student choice, social interaction, teacher modeling, and incorporating reading at home (Corcoran & Mamalakis, 2009; Gambrell et al., 1996;

McKool, 2007; Pitcher et al., 2007; Policastro et al., 2010; Ülper, 2011). However, the research did not recognize if one factor contributed more to a student's motivation than the others. Therefore, research ordering the factors in relation to importance would help identify which are most crucial to incorporate in the classroom.

The next theme was in relation to achievement in reading, specifically age and gender differences. Research has utilized various types of assessments to measure student reading achievement: standardized, performance, and teacher ratings. Studies confirmed a trend in outcomes appears to exist related to age and reading achievement (NCES, 2011; Smith et al., 2012; Phillips et al., 2002). However, further research is needed to measure similarities and differences in reading achievement by age and gender and to determine appropriate accommodations for specific groups. In addition, research has confirmed a discrepancy exists between the reading achievement of elementary girls and boys, as girls are consistently higher achieving in this area (Connell & Gunzelmann, 2004; Guthrie et al., 2001; Phillips et al., 2002; Smith et al., 2012). Research focusing on gender and reading achievement would assist in determining instructional methods that support both boys and girls.

The last theme related to the research questions combines reading motivation and achievement to determine if a relationship exists between the two. Findings in the literature have revealed a positive correlation between reading motivation and achievement is present (Baker & Wigfield, 1999; De Naeghel et al., 2012; Guthrie et al., 2006; Guthrie et al., 2007; Logan et al., 2011; Wang & Guthrie, 2004). However, few studies have examined specific grade and gender differences related to the relationship.

Therefore, future research is needed to investigate the relationship between motivation and achievement for specific grade levels and genders.

In order to meet the need for further investigations into motivations to read, reading achievement, gender, and grade level, quantitative measures were utilized in the research reported in this dissertation. The following chapter outlines the measures, procedures, and data analysis procedures used in this study.

CHAPTER III

METHODOLOGY

Participants

This study was conducted at an elementary school (Grades 3-5) in a midwestern city. At the time data was collected, the school was composed of 401 students, 202 males and 199 females ranging in age from 8-11 years old. Eighty-five percent of the children at this school were Caucasian, 15% were members of minority groups, and 3% of the students were considered English Language Learners. Students from all three grade levels (third, fourth, and fifth) took part in this study. There were 131 students in third grade (69 males and 62 females), 132 in fourth grade (62 males and 70 females), and 138 in fifth grade (71 males and 67 females). A total of 383 students from this population provided the data for this study. The same students from the first phase of this study provided the additional data for the second phase.

Instrumentation

The study in this report relied on data collected related to students' motivations to read and reading achievements. Several data collection tools were used: the Motivation to Read Profile (MRP) (see Appendix B), teacher rating scales (TRS) (see Appendix C) of reading motivation and achievement, the Minnesota Comprehensive Assessment in Reading (MCA), and the Fountas and Pinnell Reading Benchmark Assessment (RBA).

Motivation to Read Profile

Gambrell et al. (1996) developed the MRP in order to assess reading motivation (see Appendix B). As stated previously, the MRP is designed around the expectancy-value theory, and therefore evaluates a student's self-concept as a reader along with the value they place on the task of reading. The original survey is made up of 20 statements, and responses rely on a 4-point Likert-type response scale. Half the questions determine a reader's self-perceived competence as well as their performance in relation to their peers. An example item, along with its corresponding points is:

1. My friends think I am _____.
    a) a very good reader [4]
    b) a good reader [3]
    c) an OK reader [2]
    d) a poor reader [1] (Gambrell et al., 1996)

The second half of the survey determines value students place on reading tasks and activities. A sample item is:

14. Knowing how to read well is _____.
    a) not very important [1]
    b) sort of important [2]
    c) important [3]
    d) very important [4] (Gambrell et al., 1996)

All response choices are unique to each of the questions. The self-concept scale and value scale each contain 10 items. With a possible score of four points per item, each scale can total a maximum score of 40 points. These scales combined, total a maximum

score of 80 points. In order to measure the motivational level of each participant, the overall points from the survey will be computed, along with half the overall points (40 points) for the two subscales (the self-concept as a reader scale and the value of reading scale). The Motivation to Read Profile has been found to have sufficient reliability (Cronbach's $\alpha = 0.75$ for self-efficacy and 0.82 for value), along with construct validity as it directly measures motivation and reading (Applegate & Applegate, 2010).

The MRP does not offer established norms to determine whether or not students are motivated. Instead, Gambrell et al. (1996) suggested analyzing student responses separately in order to make appropriate instructional decisions that would support individualized reading development. In addition, calculated class averages can provide an overall reading motivation level for a specific group of learners. It is suggested that additional assessment tools be used in conjunction with the MRP in order to get an accurate picture of students' reading motivation levels.

Additional Motivation to Read Profile Data

In order to collect additional data on factors motivating students to read (student choice, social interaction, teacher modeling, and incorporating reading at home), 12 supplementary questions were added to the MRP survey by the researcher (see Appendix B). An example of an added supplementary question is:

23. I spend time reading at home _____.

    a) very often [4]

    b) often [3]

    c) sometimes [3]

d) never [1]

This question was added to the survey in order to examine the factor "incorporating reading at home." As explained in Chapter II, while doing the literature review, this researcher discovered four themes or factors that contribute to a student's motivation to read. These factors were addressed in supplementary questions this researcher added to the MRP. Factors addressed in supplementary questions were identified based on what the literature deemed were critical components of motivation (Corcoran & Mamalakis, 2009; Edmunds & Bauserman, 2006; McKool, 2007; Ülper, 2011).

Teacher Rating Scale of Reading Motivation

As an additional measure of reading motivation, a TRS was utilized to evaluate students' reading motivation (see Appendix C). This scale contains a five-point Likert-type response scale (1 = *far under the class average*; 5 = *far above the average*) and required teachers to rate each child's current reading motivation relative to their classmates.

Minnesota Comprehensive Assessment in Reading

The MCA is a standard-based, statewide accountability assessment given in the area of mathematics, reading, and science (Minnesota Department of Education, 2014a). According to the state of Minnesota, as required by the federal Elementary and Secondary Education Act, all students attending public schools are required to take a test once a year, aligned with their grade level and a particular subject area. These tests measure what students know and are able to do compared to standard levels of what they should know and should be able to do in each particular subject area by grade level (Minnesota Department of Education, 2014b).

At the time of this report and specific to the area of reading, the Minnesota State Legislature required all students to take the reading MCA test in Grades 3-8, along with Grade 10. The purpose of this assessment has been to, "Evaluate Minnesota students' achievement measured against the . . . 2010 Minnesota K-12 Academic Standards in Language Arts" (Minnesota Department of Education, 2014a, p. 1). Results from this test provide districts with achievement data measuring level of proficiency of students compared to state academic standards.

The Minnesota Language Arts standards (see Appendices D and E for Grades 3, 4, and 5) for each grade level (kindergarten through twelfth) contain 10 standards categorized into four skill domains. "Skill domains are Key Ideas and Details (standards 1-3), Craft and Structure (standards 4-6), Integration of Knowledge and Ideas (standards 7-9), and Range of Reading and Level of Text Complexity (standard 10)" (Minnesota Department of Education, 2014a, p. 9). Questions on the MCA assess three of the four skill domains (Range of Reading and Level of Text Complexity is intertwined throughout and is not assessed specifically by the MCA; Minnesota Department of Education, 2014a). When developing the MCA-III test, certain design issues were addressed. For example, for Grades 3-5 the MCA-III should contain 24-36 test items addressing Key Ideas and Details, 12-24 items should address Craft and Structure, and 0-2 items should address Integration of Knowledge and Ideas (please see Table 3; see Minnesota Department of Education, 2014a, for more information on design of the MCA-III reading test.).

Table 3. Number of Items (Questions) Recommended for Each Skill Domain Addressed by the MCA Reading Test.

Grades	Key Ideas and Details 50-75%	Craft and Structure 25-50%	Integration of Knowledge and Ideas 0-5%
3–5	24–36	12–24	0–2

Note. Adapted from "Minnesota Comprehensive Assessments – Series III (MCA-III): Reading test specifications for MCA-III, Grades 3-8 and 10," by the Minnesota Department of Education, October 17, 2014a, p. 10. Copyright 2014 by the Minnesota Department of Education.

Consistent with the fourth skill domain (Range of Reading and Level of Text Complexity), MCA designers developed target ranges of complexity for questions for each grade level. The MCA questions are constructed based on Norman L. Webb's (1999) Depth of Knowledge (DOK) levels: Level 1 (*recall*), Level 2 (*skill/concept*), and Level 3 (*strategic thinking*). See Table 4 (for more information on Webb's DOK levels, see Minnesota Department of Education, 2014b, p. 5).

Table 4. Target Number of Minimum Items on an MCA Reading Test by DOK Level.

Test	Grades	DOK Level 1 10% minimum	DOK Level 2 30% minimum	DOK Level 3 10% minimum
MCA-III	3–5	5	14	5

Note. Adapted from "Minnesota Comprehensive Assessments – Series III (MCA-III): Reading test specifications for MCA-III, Grades 3-8 and 10," by the Minnesota Department of Education, October 17, 2014a, p. 10. Copyright 2014 by the Minnesota Department of Education.

MCA-III Language Arts standards are also organized into two substrands: literature (short stories, drama, and poetry) and informational text (expository, persuasive, and literary texts). Each MCA question represents one of the two substrands. Kindergarten through fifth grade students meeting or exceeding these Language Arts standards are said to effectively use strategies to analyze, interpret, and evaluate

nonfiction texts in each substrand (Minnesota Department of Education, 2014a). Please see Table 5.

Table 5. Target Number of Passages and Items on an MCA Reading Test by Substrand.

Grades	Number of Passages	Number of Items	Number and Percent of Items for Literature Min-Max	Number and Percent of Items for Informational Text Min-Max
3–5	5 to 7	48	21–27 45-55%	21–27 45-55%

Note. Adapted from "Minnesota Comprehensive Assessments – Series III (MCA-III): Reading test specifications for MCA-III, Grades 3-8 and 10," by the Minnesota Department of Education, October 17, 2014a, p. 9. Copyright 2014 by the Minnesota Department of Education.

Each MCA assessment is made up of grade level passages students are required to read and answer questions about. For example, one fifth grade MCA practice story titled "Pemba Sherpa" by Olga Cossi provided a passage for students to read. Students were then given seven questions to answer related to the passage. The story introduction read, "Read this story about a boy who gains a new understanding of his sister. Then answer the questions. Some questions may ask you about certain paragraphs. These paragraphs are numbered on the left side" (Minnesota Department of Education, n.d., p. 6). Four of the questions from that test are listed below:

1. Which phrase describes the main purpose of paragraphs 1 and 2?
2. Which sentence states an important theme of the story?
3. Which sentence gives information about Yang Ki's brother that would be missing if the story had been told from her point of view? . . .
6. Which statement logically predicts Yang Ki's next actions following her brother's rescue? (Minnesota Department of Education, n.d., pp. 9, 11)

Reading level is considered when developing appropriate passages for each grade level on an MCA test. MCAs utilize "the Lexile Framework . . . developed by MetaMetrics, Inc. (Minnesota Department of Education, 2014a, p. 4). This scientific formula combines word frequency and sentence length to determine Lexile levels for each passage. The more difficult the passage, the greater the assigned Lexile level will be.

Information regarding a student's proficiency in reading can also be measured using a Lexile number, which is determined by an assessment such as the MCA. The more proficient the student is in reading, the higher their Lexile number will be. For example, advanced readers may be assigned Lexile levels above 1600L, where emergent readers may be below 200L (Table 6). This framework allows for students to proficiently read texts that are at their reading level (Minnesota Department of Education, 2014a).

Table 6. Lexile Readability Ranges by Grade.

Grade	Bottom Lexile Range	Middle Lexile Range	Top Lexile Range
3	300-445	450–790	795-860
4	450-765	770–980	985-1040
5	450-765	770–980	985-1040

Note. Adapted from "Minnesota Comprehensive Assessments – Series III (MCA-III): Reading test specifications for MCA-III, Grades 3-8 and 10," by the Minnesota Department of Education, October 17, 2014a, p. 5. Copyright 2014 by the Minnesota Department of Education.

Targets are also designed for test length, number of passages (Table 7), and length of passages (Table 8, Table 9). This helps to ensure consistency across test forms (computer and paper) and grade levels. A minimum and maximum word count range is assigned to each grade level. Each MCA test consists of mostly medium length passages (Minnesota Department of Education, 2014a).

Table 7. Target Number of Passages by Passage Length for MCA Reading Tests.

Test and Grades	Short Passages	Medium Passages	Long Passages
Grades 3–8	0–2 passages	3–7 passages	0–2 passages

Note. Adapted from "Minnesota Comprehensive Assessments – Series III (MCA-III): Reading test specifications for MCA-III, Grades 3-8 and 10," by the Minnesota Department of Education, October 17, 2014a, p. 8. Copyright 2014 by the Minnesota Department of Education.

Table 8. Target Number of Words for Passages on the MCA Reading Test.

Grade	Minimum	Maximum
3	2000	2400
4	2200	2700
5	2700	3100

Note. Adapted from "Minnesota Comprehensive Assessments – Series III (MCA-III): Reading test specifications for MCA-III, Grades 3-8 and 10," by the Minnesota Department of Education, October 17, 2014a, p. 5. Copyright 2014 by the Minnesota Department of Education.

Table 9. Target Number of Words for Short, Medium, and Long Passage Lengths.

Grade	Short Passage	Medium Passage	Long Passage
3	<300	300–600	>600
4	<350	350–700	>700
5	<400	400–800	>800

Note. Adapted from "Minnesota Comprehensive Assessments – Series III (MCA-III): Reading test specifications for MCA-III, Grades 3-8 and 10," by the Minnesota Department of Education, October 17, 2014a, p. 5. Copyright 2014 by the Minnesota Department of Education.

Advisory panels review test items in order to confirm they meet the guidelines for test construction. Careful considerations are made ensuring that questions: measure only one benchmark, are appropriate for grade levels being tested, cover a range in difficulty, are written clearly, include appropriate contextual frameworks, include graphics and graphic organizers when appropriate, include bold words when appropriate, utilize a simplified design, and do not segregate any population of students (Minnesota Department of Education, 2014a).

Each school determines whether the MCA test will be administered online or on paper. The online version of the test includes both multiple-choice and technology enhanced (various ways to respond) types of questions. Multiple-choice is the only question type included on the paper version of the test. All multiple-choice questions include three options. The MCA data gathered for this dissertation study was taken from a paper test (Minnesota Department of Education, 2014c).

Students receiving special education services may qualify to take a modified assessment, The Minnesota Test of Academic Skills (MTAS), as decided by special education teachers and administrators. This modified test assesses a smaller number of standards and is condensed in length and difficulty (Minnesota Department of Education, 2014c).

Once the MCA and MTAS tests are complete, teachers receive an achievement score for each student that coincides with one of four levels: *does not meet the standards*, *partially meets the standards*, *meets the standards*, or *exceeds the standards* (see Appendix F). Students meeting or exceeding the standards are considered proficient, as they demonstrate consistent and accurate skills needed to successfully interact with their grade level complexity of the Minnesota Academic Standards (Minnesota Department of Education, 2013).

Results from MCA assessments provide a limited diagnosis of each child (see Appendix G) and are used to improve classroom instruction, helping to meet individual needs of learners. They are also used to assess each school's ability to align curriculum and instruction to state standards (Minnesota Department of Education, 2014a).

Fountas and Pinnell Reading Benchmark Assessment

Fountas and Pinnell's development of literacy research closely reflects the work of Marie Clay, an avid researcher in this content area. Clay's (1993) research findings relating to the reading process revealed that on one hand, when a child reads a text that is too challenging, the reading process proves ineffective and little reading growth occurs. On the other hand, when a child interacts with a text that is at their level, opportunities for explicit teaching arise, resulting in reading growth.

Fountas and Pinnell's goal has always been to support the reading development of children by providing a range of texts at all different levels (Fountas & Pinnell, 2008). After over 20 years of research, they believe in the importance of linking book levels to reading abilities. Therefore, they developed a system known as the text level gradient. The gradient is defined as, "A twenty-six point text rating scale of difficulty in which each text level . . . represents a small but significant increase in difficulty over the previous level" (Fountas & Pinnell, 2008, p. 173). Using their gradient, books are leveled from A to Z, with A being the easiest and Z being the most difficult to read. This leveled continuum correlates with grade levels (see Appendix H). For example, students at the end of fourth grade should be able to read books that are leveled S and above. Ten complex factors are taken into account when leveling both fiction and nonfiction books: genre, text structure, content, themes, language, sentence complexity, vocabulary, word difficulty, illustrations, and book features. According to Fountas and Pinnell (2008), understanding what students at each grade level should be able to do to read fluently and comprehend what they read was essential to creating their system.

Fountas and Pinnell (2008) further developed the Reading Benchmark Assessment (RBA) to determine appropriate text levels for students. This tool has been used to identify a student's independent and instructional reading level, while also documenting progress through formative and summative assessments. Each Benchmark Assessment kit includes a fiction and nonfiction text at each A through Z reading level. The kit also includes materials teachers utilize to assess their students and determine an appropriate text level for them (see Appendix I). Editing and field-testing the leveled texts provided in the kit has helped confirm texts in the kit provide a true reflection of text characteristics at each A through Z level mentioned previously. In addition, an outside evaluation team's independent study confirmed this system to be a reliable, valid, and consistent way of assessing reading progress in relation to grade level criteria (Ransford-Kaldon, Sutton, Ross, Franceschini, & Huang, 2010).

Teacher Rating Scale of Reading Achievement (TRS)

As an additional measure of reading achievement in this dissertation study, a TRS was utilized to evaluate students' reading achievement (see Appendix C). This scale contained a five-point Likert-type response scale (1 = *far under the class average*; 5 = *far above the class average*) and required teachers to rate each child's reading achievement relative to their classmates.

Procedure

Phase One

The first phase of this study was conducted with Institutional Review Board approval in April of 2014. This phase involved collecting data from the MRP and TRS of motivation and reading achievement. Teachers and students completed these assessments and surveys in April of 2014 and these data were collected immediately upon completion. Prior to collecting data for phase one, building principal and classroom teachers of the potential participating school were contacted. Once permission had been obtained from the building principal (written) and individual teachers (oral), introductory letters (Appendices J and K) were sent to the families of the participants. In order for the study to take place, assent was required from all individuals involved in the study indicating their agreement to take part in the study. Once assent had been obtained, the MRP and TRS were collected in order to measure students' reading motivation and achievement level.

Motivation to read profile (MRP). In order to assess reading motivation of student participants, Gambrell and colleagues' (1996) MRP was used (the MRP includes two instruments: a reading survey and a conversational interview. Due to the quantitative nature of this study, the reading survey portion of the MRP was the instrument used to gather data). Prior to administering the surveys to students, teachers were trained on the procedures, helping to attain consistent results. The researcher met with each grade level of teachers in order to introduce the study, explain the purpose and directions of the survey, model the procedures for administering the survey to students, and answer any questions.

Teachers administered the survey to their classroom of students. Students completed this self-report survey during their classroom reading hour and were given as much time as needed. Students were informed that it would not be graded and would simply be used to improve reading instruction. In order to ensure that all students understood the questions, the classroom teacher read the survey aloud to the entire class.

Teacher rating scales (TRSs). The same week MRP surveys were completed, classroom teachers completed a TRS evaluating each student's reading motivation and achievement level. Prior to completing these scales, teachers were trained on procedures for filling out the TRSs, helping to attain consistent results. The researcher met with each grade level of teachers in order to introduce the study, explain the purpose and directions, model the procedures for completing the TRS rating scales, and answer any questions. Teachers were asked to use the class list provided to them to first rate each child's current reading motivation relative to their classmates. They were then asked to rate each child's academic achievement level in reading relative to their classmates. Results were used as an indicator of both reading motivation and achievement for each child.

Phase Two

Phase two of the study entailed collecting MCA and RBA data under a separately approved IRB (Appendix L). The MCA and RBA assessments were completed by participants in April of 2014, but the researcher did not collect and analyze phase two data until January 2015. This was due to the fact that MCA and RBA scores were not available until the following academic year (October, 2014) and IRB approval for collecting this set of pre-existing data was not obtained until January of 2015. Participants in phase one and two are the same students and teachers.

Minnesota comprehensive assessment (MCA) for reading. Students completed the state required MCA in April of 2014. The test was organized into four separate sections. Each student completed their MCA over the course of two days (two sections each day). Two hours were allotted for students to complete each section. However, students who did not finish were given time the following day to complete the test. The test was completed as a paper test and took place in students' grade level classrooms. Teachers were instructed on how to administer the test through an online tutorial. They were also given a statewide script to read when first introducing the test to students, along with each of the four sections. Students diagnosed as mildly mentally impaired (MMI) or cognitively impaired completed a modified Minnesota Comprehensive Reading Assessment, the Minnesota Test of Academic Skills (MTAS). This test was completed in an alternative classroom.

Fountas and Pinnell's reading benchmark assessment (RBA). RBAs required by the district were completed for each student in April of 2014. Classroom teachers administered the reading benchmarks to each student in the form of a one-on-one conference. During a conference, a student reads a leveled book out loud to the teacher. These texts are selected from Fountas and Pinnell's (2008) Benchmark Assessment Kit. While the student reads, their teacher observes, assesses, and codes the reader's behaviors using a benchmark form that is also included in the kit (see Appendix I). Using information such as fluency and comprehension, established scoring conventions provide two text gradient levels for where each child should be reading at: independent and instructional. During this study, each student's instructional levels were documented and provided to the principal. This test is administered three times each year in order to

assess progress on each student. A benchmark continuum provides a base of what level students should be reading at for each grade level (see Appendix H).

Collecting three forms of achievement data (TRS, MCA, and RBA data) helped portray the various ways reading achievement is evaluated. In addition, the two forms of reading motivation data (MRP and TRS) assisted in providing an accurate picture of each child's reading motivation level.

Data Analysis and Hypotheses

Data from the MRP, TRS (of achievement and motivation), MCA, and RBA were analyzed. IBM SPSS (Statistical Package for the Social Sciences) software (Version 22.0, Armonk, NY) was used to perform the analyses. The analyses and hypotheses have been organized to coincide with the research questions presented in the study.

Research Question 1

What is the level of elementary students' motivation to read? Data from each student's MRP (Motivation to Read Profile) were utilized. On this survey, students were asked to rate their motivations on a scale of 1 to 4, 4 being the most positive response and 1 being the least positive response. In addition, the TRS (teacher rating scale) of each child's reading motivation was included in the analysis. Teachers were asked to rate their student's reading motivation on a scale of 1 to 5; 5 being the most motivated, and 1 being the least motivated. Means and standard deviations were calculated to measure general reading motivation using scores of students totaled on the original MRP (i.e., excluding the 12 supplementary questions added to the survey by the researcher), along with teacher motivation ratings. In order to differentiate the point distributions related to the two subscales (self-concept as a reader and value of reading) of the MRP, means and standard

deviations were also computed separately. Further, quartiles and a quintile were computed to differentiate the points beyond the mean. Quartiles divided the data from the MRP and subscales into four equal parts, with a range representing the series of possible scores relating to each of the four parts. Since the TRS used a 5-point Likert-type response scale, a quintile was used, dividing the data into five equal parts.

As stated previously, the MRP does not offer established norms determining whether or not students are motivated. Surveying a large sample helped to compare results between participants to get a better idea of students' level of motivation to read. Examining the distribution of scores exhibited how the majority of students performed on this survey.

Hypothesis. It was expected that, in general, students' motivation to read would be low. The average projected score in terms of total motivation would likely be less than 50% with a larger percentage of students represented in the bottom two quartiles and quintile. In terms of subscales (self-concept and value), a larger percentage of points were expected to come from questions related to the value ascribed to reading. Although it was assumed few students are motivated to read, results were expected to show that a larger number believed reading is important. In other words, students would be able to see the value in reading but have low expectations for success, which would deter their reading motivation. The results of this research question were expected to stay consistent with past empirical studies (Applegate & Applegate, 2010; Corcoran & Mamalakis, 2009) that found students see value in reading, but lack confidence in their reading ability, affecting their reading motivation.

Research Question 2

What are the key factors relating to elementary students' motivation to read? In an attempt to address this question, factors from the MRP were placed into categories by the researcher: student choice, social interaction, teacher modeling, and incorporating reading at home. As stated previously, categories were selected based on motivational components previous literature deemed critical (Applegate & Applegate, 2010; Edmunds & Bauserman, 2006; McKool, 2007). Questions from the original survey, along with the 12 supplementary questions the researcher added to the survey for this purpose were used. In addition, the TRS of each child's reading motivation was included in the analysis. A correlation analysis between the four factors and a student's motivation to read were conducted and analyzed in order to evaluate the relationships between each construct. A hierarchical regression including all four factors as predictors and motivation (along with the two subscales) as the outcome variable was also conducted to determine if one factor was a stronger predictor than the others of students' motivation to read.

Hypothesis. Four motivational factors were expected to positively correlate with a student's motivation to read: student choice, social interaction, teacher modeling, and incorporating reading at home. Projected findings suggested that in order for students to be highly motivated to read, these factors need to be present in the classroom, along with incorporating reading at home. Results were expected to add to the list of past empirical research supporting this hypothesis (Corcoran & Mamalakis, 2009; Edmunds & Bauserman, 2006; McKool, 2007; Ülper, 2011).

Research Question 3

What is the relationship between elementary students' motivation to read and their academic achievement in reading? First, a correlation analysis between the motivation (MRP and TRS of motivation) and achievement (TRS of achievement, MCA, and RBA) factors was conducted and analyzed in order to evaluate relationships between each construct. In addition, multiple regressions were attempted to examine the predictive relationship of reading motivation on reading achievement. However, due to multicollinearity, multiple regressions were not presented. Multicollinearity refers to high intercorrelations of two or more variables, presenting the possibility of unreliable data.

Hypothesis. Results were expected to show significant positive correlations between a student's motivation to read and their academic achievement in reading. In other words, the higher a student scores on motivation scales, the higher their academic achievement scores will be. Results were expected to stay consistent with past empirical studies finding a positive correlation between reading motivation and academic achievement in reading (Cunningham & Stanovich, 1997; Gottfried, 1990; Guthrie, Schafer, & Huang, 2001).

Research Question 4a

Are there significant grade (third, fourth, and fifth) and gender differences in elementary students' motivation to read and their academic achievement in reading? In order to address Question 4a, a 3 (third, fourth, and fifth grade) x 2 (boys, girls) factorial ANOVA was conducted. To address the first part of Question 4a, significant main and interaction effects of grade level were examined. Results were used

to compare the means of the three grade levels. A separate analysis was conducted for each of the dependent variables: motivation and academic achievement. These analyses were tested for statistical significance at $p < .05$. In order to minimize Type I error, a Bonferonni (α of .01) was applied to determine significance. To address the second part of Research Question 4a, significant main and interaction effects of gender were examined. Results were used to analyze the mean differences relating reading motivation to gender, along with reading achievement to gender.

Hypotheses. The results were expected to indicate that, overall, students from lower grade levels would be significantly more motivated to read. In addition, their reading achievement in relation to their grade level would be greater than students from older grades. It was also expected that girls at all three grade levels would score significantly higher than boys in terms of reading motivation and achievement. Findings regarding motivational differences in age (Kush & Watkins, 1996) and gender (Applegate & Applegate, 2010) supported the first part of this research question. In addition, findings regarding reading achievement differences associated with age (NCES, 2011) and gender (Smith, Smith, Gilmore, & Jameson, 2012) supported the second part of this research question.

Research Question 4b

Are there significant grade (third, fourth, and fifth) and gender differences in the relationship between elementary students' motivation to read and their academic achievement in reading? To address Question 4b, a correlation analysis was conducted and analyzed in order to evaluate the relationships between each construct

(motivation and achievement). In addition, the relationship between motivation and achievement was compared for statistical differences across gender and grade level.

Hypothesis. In relation to Research Question 4b, it was expected that, overall, students' reading motivation in lower grade levels would display a stronger positive correlation with reading achievement. It was also expected that girls' reading motivation at all three grade levels would display a stronger positive correlation with reading achievement than boys. Results were expected to stay consistent with past empirical research related to this topic (Baker & Wigfield, 1999).

CHAPTER IV

RESULTS

Introduction

In this section, results of the analyses used to investigate each research question are presented. First, psychometric properties for all items used in the study are described (Tables 10-30). Second, results from the first research question are reported: means, standard deviations, quartiles, and a quintile from Gambrell et al.'s, (1996) Motivation to Read Profile (MRP) and the teacher rating scale (TRS) of motivation. Third, results related to the second research question are described: a correlation analysis and hierarchical regression from the original MRP survey, along with 12 supplementary questions added to the MRP for this study and the TRS of each student's reading motivation. Next, results concerning the third research question are presented: a correlation analysis between the motivation and achievement factors. Finally, results related to the last research question are revealed: a 3 (third, fourth, and fifth grade) x 2 (boys, girls) factorial ANOVA and correlation analysis.

Descriptive Statistics

First, grade and gender frequencies of all participants involved in the study are presented (Table 10). Next, descriptive statistics and inter-item correlation matrices from the MRP, along with four additional factors added to this survey by the researcher, are

reported (Tables 11-25). Next, a collection of composite scores with characterizing variables (gender, grade, gender by grade) is displayed for each item used in the study (Tables 26-29). Means, standard deviations, skewness, and kurtosis, are included in these tables. Skewness measures symmetry. A distribution is symmetrical if it looks the same on both sides. Kurtosis measures how sharp or flat the peak of a distribution is. Future general linear models analyses will have an assumption that residuals be normally distributed; while it is known that normal distribution of residuals is not the same as normal distribution of variable scores, Field (2013) asserted that if the data are normally distributed, then it would not be unreasonable to assume normal distribution of error. Finally, a correlation matrix for all variables used in the study is presented (Table 30).

Gender and Grade Frequencies

A total of 383 ($N = 383$) students, Grades 3-5, took part in this study. After examining gender and grade frequencies (Table 10), it was evident that not only were there a balanced set of participants from each grade level, but the gender mix in each grade level was comparable. These aspects helped ensure that results were as accurate and reliable as possible.

Table 10. Gender and Grade: Frequencies of Participants.

	Gender		Grade		
	♀	♂	3rd	4th	5th
Frequency (*n*)	193	190	123	126	134

	Gender x Grade					
	♀			♂		
	3rd	4th	5th	3rd	4th	5th
Frequency (*n*)	62	66	65	61	60	69

Note. *N = 383*

M**otivation to Read Profile**

As stated previously, in order to measure reading motivation, students completed the MRP. This profile is designed to measure two aspects of motivation. Ten questions measure a student's self-concept as a reader, while the other ten measure the value students place on reading (see Appendix M, section on "Motivation to Read Profile"). The descriptive statistics in this study and inter-item correlations below are organized by these two subscales.

Self-Concept Subscale. Four of the questions on this portion of the MRP were reverse coded to warrant consistent responses across the scale (see Appendix M, section on "Motivation Subscale – Self Concept as a Reader"). For this portion of the MRP relating to self-concept, Cronbach's α equaled .77, which is above the .70 criteria. In other words, if an instrument has a Cronbach's α value of .70 or above, it is considered to have adequate reliability. Being this portion of the profile was taken from an established survey with a respectable Cronbach's α, the researcher decided to retain all original items

for use in the study. Transcribing the data revealed each question was an essential piece to effectively measuring a student's self-concept as a reader.

The MRP uses a 4-point Likert-type response scale. When reviewing the survey responses for all 10 questions on this portion of the scale, it was apparent responses were weighted to the high end of the scale (Table 11). For example, Question 9 stated:

9. When I am reading by myself, I understand_____.

    a. almost everything I read [4]

    b. some of what I read [3]

    c. almost none of what I read [2]

    d. none of what I read [1]

A total of 373 students responded to Question 9 by choosing an "a" (value of 4) or a "b" (value of 3), where only 7 students responded by choosing a "c" (2) or a "d" (1). These results suggested that the majority of students had a high concept of them self as a reader.

Means, standard deviations, skewness, and kurtosis are also presented at the bottom of Table 11. These descriptive statistics are composite scores of all 10 response items. Only students who completed all 10 items were included in the descriptive statistics (n = 370). The distributions of scores are not statistically different than normal.

Table 11. Self-Concept as a Reader: Response Frequencies.

	Question									
Value of Response	3*	5	7*	9*	11	13	15	17*	19	21
1 least agreeable	4	52	0	1	8	20	3	7	54	25
2	49	193	11	6	58	31	51	43	163	123
3	210	88	208	111	182	130	175	152	104	177
4 most agreeable	118	50	161	262	131	200	152	179	60	57

Scale Descriptive Statistics	*n*	*M*	*SD*	skewness	*SE*	kurtosis	*SE*
	370	30.8	4.21	–.289	.131	–.055	.261

Note. $N = 383$ (maximum number of responses missing for a single question = 3 students). For reverse coded items, a "1" value represents the most agreeable answer and a "4" value, the least agreeable answer. * reverse coded item. Summed scale ranged from 10 to 40 points.

When reviewing the correlation matrix in Table 12, many items from this portion of the survey were significant. In order to differentiate strongly significant relationships from significant relationships, it was decided that Taylor's (1990) moderate to strong relationship (a correlation of .5 or greater signifies a strongly significant relationship), indicating 25% of variability or more, was valuable to record. Four correlations using this criterion are shaded in Table 12.

Table 12. Correlation[1] Matrix for Self-Concept as a Reader.

	Code (MRP Item Number)								
Code (Item #)	selfc2 (5)	selfc3 (7)	selfc4 (9)	selfc5 (11)	selfc6 (13)	selfc7 (15)	selfc8 (17)	selfc9 (19)	selfc10 (21)
selfc1 (3)	.49**	.32**	.18**	.64**	.10*	.12*	.37**	.11*	.42**
selfc2 (5)		.39**	.21**	.62**	.09	.13**	.43**	.09	.37**
selfc3 (7)			.22**	.44**	.06	.18**	.43**	.17**	.30**
selfc4 (9)				.28**	.13**	.24**	.29**	.12*	.14**
selfc5 (11)					.15**	.22**	.55**	.14**	.50**
selfc6 (13)						.15**	.16**	.06	.17**
selfc7 (15)							.18**	.31**	.19**
selfc8 (17)								.14**	.38**
selfc9 (19)									.19**

[1] Spearman *rho*, * $p < .05$, ** $p < .001$

Value of Reading Subscale. Five questions on this portion of the MRP were also reverse coded to warrant consistent responses across the scale (see Appendix M, section on "Motivation Subscale – Value of Reading"). The Cronbach's α for this portion of the MRP was equal to .85, which is above the .70 criteria. Again, being this was taken from an established survey with a respectable Cronbach's α, it was decided to retain all original items, as they are all essential pieces to effectively measuring the value a student places on reading.

When reviewing the survey responses for all 10 questions on this portion of the scale, it was apparent that responses were again weighted at the high end of the response scale (Table 13).

For example, Question 14 stated:

14. Knowing how to read well is_____.

    a. not very important [1]

b. sort of important [2]

c. important [3]

d. very important [4]

A total of 357 students chose either "d" (a value of 4) or "c" (a value of 3), whereas only 25 chose a "b" (value of 2) or an "a" (value of 1). These results suggest the majority of students considered reading highly valuable.

Means, standard deviations, skewness, and kurtosis are presented at the bottom of Table 13. These descriptive statistics are composite scores of all 10 items from this subscale or portion of the MRP. Only students who completed all 10 items were included in the descriptive statistics (n = 370). The distributions of scores are not statistically different than normal.

Table 13. Value of Reading: Response Frequencies.

	Question									
Response	4	6*	8	10*	12*	14	16	18	20*	22*
1 least agreeable	17	34	69	25	47	8	27	17	15	19
2	40	147	55	49	96	17	104	54	79	37
3	177	141	176	199	94	66	88	213	91	131
4 most agreeable	148	58	78	104	144	291	163	99	197	195

Scale Descriptive	*n*	*M*	*SD*	skewness	*SE*	kurtosis	*SE*
Statistics	368	30.6	5.69	–.904	.131	.797	.261

Note. *N = 383* (maximum missing data for a question = 6 students). For reverse coded items, a "1" value represents the most agreeable answer and a "4" value, the least agreeable answer. * reverse coded item. Summed scale ranged from 10 to 40 points.

When reviewing the correlation matrix in Table 14, again, many items from this portion of the survey were significant. Using the .5 or greater criterion mentioned in the

previous section of this paper (Taylor, 1990), five items displayed a strongly significant relationship and are shaded in Table 14.

Table 14. Correlation[1] Matrix for Value as a Reader.

	Code (MRP Item Number)								
Code (Item)	value2 (6)	value3 (8)	value4 (10)	value5 (12)	value6 (14)	value7 (16)	value8 (18)	value9 (20)	value10 (22)
value1 (4)	.33**	.35**	.44**	.39**	.22**	.62**	.47**	.15*	.55**
value2 (6)		.31**	.36**	.37**	.16**	.47**	.36**	.19**	.36**
value3 (8)			.36**	.30**	.21**	.34**	.38**	.15**	.32**
value4 (10)				.44**	.27**	.56**	.43**	.24**	.49**
value5 (12)					.23**	.61**	.40**	.20**	.50**
value6 (14)						.33**	.34**	.17**	.20**
value7 (16)							.54**	.21**	.56**
value8 (18)								.25**	.46**
value9 (20)									.26**

[1] Spearman *rho*, * $p < .05$, ** $p < .001$

Incorporating reading at home. In order to collect additional data on factors motivating students to read (incorporating reading at home, teacher modeling, student choice, and social interaction), 12 supplementary questions were added to the MRP survey by the researcher (see Appendix M, section on "Incorporating Reading at Home"). Categories were selected based on motivational components previous literature deemed critical (Corcoran & Mamalakis, 2009; Edmunds & Bauserman, 2006; McKool, 2007; Ülper, 2011). Consistent with the original MRP items, a 4-point Likert-type response scale was utilized.

Five questions were added to the MRP in order to measure the factor "incorporating reading at home." A factor analysis revealed all items (all five questions) loaded onto one factor (ranging in value from .72 to .55) with an eigenvalue of 1 or

higher. Eigenvalues are calculated to determine the number of factors extracted in a factor analysis. Selecting eigenvalues of 1.00 or more is a common default for most statistical programs such as SPSS. The Cronbach's α for the five items in this subscale was .62. Further, deleting any items would result in the Cronbach's α decreasing. Although results reveal a somewhat less than desirable Cronbach's α, it was decided to utilize this subscale anyway as previous literature has deemed "incorporating reading at home" a critical motivational component (McKool, 2007; Policastro et al., 2010). Further, each question was essential to measuring this variable and was important in order to maintain enough items for the scale. Therefore, it was decided to retain all five items on the scale. This limitation is noted and will be further discussed in the following chapter.

When reviewing the survey responses for the five questions, it was clear that responses were varied across the Likert scale (Table 15). For example, Question 23 stated:

23. I spend time reading at home.

    a. very often [4]

    b. often [3]

    c. sometimes [2]

    d. never [1]

A total of 195 students chose either an "a" (a value of 4) or a "b" (3) and 185 students responded by choosing a "c" (2) or a "d" (1). These numbers are somewhat comparable

suggesting there was no common theme related to the amount of reading incorporated by participating students at home.

Means, standard deviations, skewness, and kurtosis are presented at the bottom of Table 15. These descriptive statistics are composite scores of all five response items. Only students who completed all five items were included in the descriptive statistics (n = 370). The distribution of scores was not statistically different than a normal distribution.

Table 15. Incorporating Reading at Home: Response Frequencies.

	Question				
Response	23	24	25	26	27
1 never	23	22	158	41	129
2 sometimes	162	112	152	170	157
3 often	119	99	48	88	63
4 very often	76	148	23	83	32

Scale Descriptive Statistics	*n*	*M*	*SD*	skewness	*SE*	kurtosis	*SE*
	377	12.0	2.87	.177	.131	–.152	.261

Note. N = 383 (maximum missing data for a question = 3 students). Summed scale ranged from 5 to 20 points.

When reviewing the correlation matrix in Table 16, it appeared many items from this portion of the survey were significant. However, when differentiating strongly significant relationships from significant relationships using a correlation of .5 or greater (Taylor, 1990), none of the correlations met the criteria.

Table 16. Correlation[1] Matrix for Incorporating Reading at Home.

	Code (MRP Item Number)			
Code (MRP Item Number)	2 (24)	3 (25)	4 (26)	5 (27)
home1 (23)	.41**	.17**	.20**	.35**
home2 (24)		.14*	.18**	.21**
home3 (25)			.21**	.30**
home4 (26)				.24**

[1] Spearman *rho*, * $p < .01$, ** $p < .001$

Teacher modeling. Three questions were added to the MRP, along with one question used from the original MRP, in order to measure "teacher modeling" (see Appendix M, section on "Teacher Modeling"). One of the questions on this portion of the MRP was reverse coded to warrant consistent responses across the scale. A factor analysis revealed all items (all four questions) loaded onto one factor (ranging in value from .80 to .65) with an Eigen Value of 1 or higher. The Cronbach's α for these four items was .71. Further, deleting any items would result in the Cronbach's α decreasing. Therefore, it was decided to retain all four items on this subscale.

When reviewing survey responses for the four questions in this subscale, responses demonstrated variance across the scale (Table 17). For example, Question 28 stated:

28. I would like for my teacher to talk about books he/she likes.

    a. very often [4]

    b. often [3]

    c. sometimes [2]

    d. never [1]

A total of 171 students responded with an "a" (a value of 4) or a "b" (3), and 212 students responded with either a "c" (2) or a "d" (1). These results suggested no common theme related to the impact teacher modeling has on a student's motivation to read.

Means, standard deviations, skewness, and kurtosis were also presented at the bottom of this Table 17. These descriptive statistics are composite scores of all four response items. Only students who completed all four items were included in the descriptive statistics (n = 370). The distributions of scores was not statistically different than normal.

Table 17. Teacher Modeling: Response Frequencies.

	Question			
Response	28	29	30	20*
1 least agreeable	44	45	49	15
2	168	123	148	79
3	107	110	106	91
4 most agreeable	64	105	79	197

Scale Descriptive Statistics	*n*	*M*	*SD*	skewness	*SE*	kurtosis	*SE*
	381	11.0	2.75	–.23	0.131	–.283	0.261

Note. N = 383 (maximum missing data for one question = 1 student). For reverse coded items, a "1" value represents the most agreeable answer and a "4" value, the least agreeable answer. * reverse coded item. Summed scale ranged from 4 to 16 points.

When reviewing the correlation matrix in Table 18, many items from this portion of the survey were significant. However, only one correlation met the .5 or greater criteria (Taylor, 1990) for a strongly significant relationship. That item is shaded in Table 18.

Table 18. Correlation[1] Matrix for Teacher Modeling.

Code (MRP Item Number)	Code (MRP Item Number) model2 (29)	model3 (30)	value9 (20)
model1 (28)	.55**	.39**	.34**
model2 (29)		.35**	.35**
model3 (30)			.27**

[1] Spearman *rho*, ** $p < .001$

Student choice. Four questions were added to the MRP in order to measure "student choice" (see Appendix M, section on "Student Choice"). One of the questions on this portion of the MRP was reverse coded to warrant consistent responses across the scale. In the process of transcribing the data, one question didn't appear to correctly measure the "student choice" variable and was removed (choice4, 34. I am interested in books I am required to read.). A factor analysis revealed all remaining items loaded onto one factor (ranging in value from .75 to .67) with an Eigen Value of 1 or higher. The Cronbach's α was .60. Further, deleting any other items would result in the Cronbach's α decreasing. Although results revealed a somewhat less than desirable Cronbach's α, it was decided to utilize this scale as previous literature has deemed "student choice" a critical motivational component (Allington & Gabriel, 2012; Edmunds & Bauserman, 2006; Gambrell, 2011; Pitcher et al., 2007). Further, each question was essential to measuring this variable and was important in order to maintain enough items for the subscale. Therefore, it was decided to retain the three remaining items on the scale. This limitation is noted and will be further discussed in the following chapter.

When reviewing survey responses for the remaining three questions, responses appeared to weight to the high end of the scale (Table 19). For example, Question 31 stated:

31. Choosing what I read is important to me.

    a. very often [4]

    b. often [3]

    c. sometimes [2]

    d. never [1]

A total of 292 students chose either "a" (a value of 4) or "b" (3), and 89 students chose either "c" (2) or "d" (1). These results suggested that it is very important for students to be able to choose what they read in order for them to be motivated.

Means, standard deviations, skewness, and kurtosis are presented at the bottom of Table 19. These descriptive statistics are composite scores of all three response items. Only students who completed all three items were included in the descriptive statistics (*n* = 370). The distribution of scores was not statistically different than normal.

Table 19. Student Choice: Response Frequencies.

	Question		
Response	31	32	33
1 never	17	47	20
2 sometimes	72	116	80
3 often	90	102	102
4 very often	202	117	180

Scale Descriptive Statistics	*n*	*M*	*SD*	skewness	*SE*	kurtosis	*SE*
	379	9.2	2.14	–.60	0.125	–.24	0.250

Note. *N* = 383 (maximum missing data for one question = 2 students). Summed scale ranged from 3 to 12 points.

When reviewing the correlation matrix, many items from this portion of the survey were significant (Table 20). However, when differentiating with a correlation of .5 or greater (Taylor, 1990), none of the correlations met the criteria for being strongly significant.

Table 20. Correlation[1] Matrix for Student Choice.

	Code (MRP Item Number)	
Code (MRP Item Number)	choice2 (32)	choice3 (33)
choice1 (31)	.34**	.34**
choice2 (32)		.32**

[1] Spearman *rho*, ** $p < .001$

Social interaction. Six questions were taken from the original MRP and grouped together to measure "social interaction" (see Appendix M, section on "Social Interaction"). Two questions were reverse coded to warrant consistent responses across the scale. In the process of transcribing the data, one question didn't appear to correctly measure this variable and was removed (selfc6, 13. I worry about what other kids think about my reading). A factor analysis revealed all remaining items loaded onto two factors (ranging in value from .75 to .40 for Factor 1 and .79 to .63 for Factor 2) with Eigen Values of 1 or higher. However, it was decided to retain the remaining five items as one factor. The Cronbach's $\alpha = .52$ when the five remaining items were loaded onto one factor. Further, deleting any other items would result in the Cronbach's α decreasing. Although results revealed a somewhat less than desirable Cronbach's α, it was decided to utilize this scale as previous literature has deemed "social interaction" a critical component in motivating students to read (Corcoran & Mamalakis, 2009; Edmunds &

Bauserman, 2006; McKool, 2007; Ülper, 2011). This is noted as a limitation and will be further discussed in the following chapter.

When reviewing survey responses, it was apparent the responses were weighted at the high end of the scale (Table 21). For example, Question 3, the first question on the "social interaction" subscale stated:

3. My friends think I am _____.

    a. a very good reader [4]

    b. a good reader [3]

    c. an ok reader [2]

    d. a poor reader [1]

A total of 328 students responded by choosing either "a" (a value of 4) or "b" (3), and only 53 students responded choosing "c" (2) or "d" (1). The results suggested that it is very important for students to be able to socially interact when they are reading.

Means, standard deviations, skewness, and kurtosis are also presented at the bottom of Table 21. These descriptive statistics are composite scores of all five response items. Only students who completed all five items were included in the descriptive statistics (n = 370). The distribution of scores was not statistically different than a normal distribution.

Table 21. Social Interaction: Response Frequencies.

Response	Question 3*	5	6*	8	19
1 least agreeable	4	52	34	69	54
2	49	193	147	55	163
3	210	88	141	176	104
4 most agreeable	118	50	58	78	60

Scale Descriptive Statistics	*n*	*M*	*SD*	skewness	*SE*	kurtosis	*SE*
	371	13.3	2.54	–.091	.127	–.143	.253

Note. $N = 383$ (maximum missing data for one question = 5 students). For reverse coded items, a "1" value represents the most agreeable answer and a "4" value, the least agreeable answer. * reverse coded item. Summed scale ranged from 5 to 20 points.

The correlation matrix in Table 22 displays multiple items from this portion of the survey as significant. However, when differentiating with a correlation of .5 or greater (Taylor, 1990), none of the correlations met the criteria for being strongly significant.

Table 22. Correlation[1] Matrix for Social Interaction.

Code (MRP Item Number)	Code (MRP Item Number) selfc2 (5)	selfc9 (19)	value2 (6)	value3 (8)
selfc1 (3)	.49**	.12*	.09	.22**
selfc2 (5)		.10	-.13*	.12*
selfc9 (19)			.15**	.33**
value2 (6)				.32**

[1] Spearman *rho*, * $p < .05$, ** $p < .001$

Characterization by gender. Table 23 is organized by the six variables addressed by the MRP (self-concept, value, and the four additional factors added by the researcher – incorporating reading at home, teacher modeling, student choice, and social interaction). For each variable, means, standard deviations, skewness, and kurtosis are

presented by gender. After reviewing the results, it is noted from the descriptive statistics that the distribution of scores was not statistically different than a normal distribution.

Table 23. Motivation to Read Profile – by Participant Gender.

Variable	gender	*n*	*M*	*SD*	skewness	*SE*	kurtosis	*SE*
Self-Concept	♀	181	31.0	4.00	–.277	.181	–.201	.359
	♂	172	30.6	4.44	–.297	.185	–.113	.368
Value of Reading	♀	181	32.1	4.72	–.860	.181	.532	.359
	♂	172	29.2	6.16	–.714	.185	.366	.368
Incorporating Reading at Home	♀	181	12.4	2.70	.297	.181	–.122	.359
	♂	172	11.5	2.91	.164	.185	–.284	.368
Teacher Modeling	♀	181	11.3	2.69	–.271	.181	–.430	.359
	♂	172	10.6	2.76	–.150	.185	–.147	.368
Student Choice	♀	181	9.6	1.93	–.667	.176	.044	.350
	♂	172	8.7	2.27	–.439	.177	–.542	.353
Social Interaction	♀	181	13.7	2.27	–.319	.177	.477	.353
	♂	172	12.8	2.71	.202	.180	.161	.357

Characterization by grade level. Table 24 is organized by six variables addressed by the MRP (self-concept, value, and the four additional factors added by the researcher – incorporating reading at home, teacher modeling, student choice, and social interaction). For each variable, means, standard deviations, skewness, and kurtosis are presented by grade level. After reviewing the results, it is noted from the descriptive statistics that the distribution of scores was not statistically different than a normal distribution.

Table 24. Motivation to Read Profile – by participant Grade.

Variable	grade	*n*	*M*	*SD*	skewness	*SE*	kurtosis	*SE*
Self-Concept	3rd	110	31.5	4.14	–.307	.230	.419	.457
	4th	119	30.1	3.90	–.027	.222	–.120	.440
	5th	124	31.0	4.49	–.498	.217	–.298	.431
Value of Reading	3rd	110	30.7	6.33	–.970	.230	.614	.457
	4th	119	31.6	4.88	–.894	.222	1.000	.440
	5th	124	29.7	5.57	–.739	.217	.591	.431
Incorporating Reading at Home	3rd	110	11.7	2.89	.182	.230	.400	.457
	4th	119	12.6	2.98	.195	.222	–.631	.440
	5th	124	11.7	2.57	.015	.217	–.488	.431
Teacher Modeling	3rd	110	10.8	2.90	–.280	.230	–.180	.457
	4th	119	11.6	2.60	–.354	.222	–.412	.440
	5th	124	10.4	2.62	–.009	.217	–.154	.431
Student Choice	3rd	110	9.1	2.36	–.624	.220	–.461	.437
	4th	119	9.5	1.87	–.527	.217	–.328	.430
	5th	124	9.0	2.15	–.500	.210	–.215	.417
Social Interaction	3rd	110	13.4	2.57	.126	.222	.460	.440
	4th	119	13.3	2.27	–.264	.218	.691	.433
	5th	124	13.2	2.76	–.156	.213	–.439	.423

Characterization by gender and grade. Table 25 is also organized by the six variables addressed by the MRP (self-concept, value, and the four additional factors added by the researcher). For each variable, means, standard deviations, skewness, and kurtosis are presented by participant gender and grade level. It is noted from the descriptive statistics for composite scores that one composite score presents a leptokurtic distribution, suggesting a higher frequency of values near the mean: "value of reading" for fourth grade boys (2.564). This result is shaded below.

Table 25. Motivation to Read Profile – by Participant Gender and Grade.

Variable	gender	grade	*n*	*M*	*SD*	skewness	*SE*	kurtosis	*SE*
Self-Concept	♀	3rd	62	31.6	3.81	–.018	.304	.267	.599
		4th	65	30.4	3.86	–.010	.297	–.393	.586
		5th	64	31.1	4.19	–.498	.299	–.344	.590
	♂	3rd	55	31.3	4.39	–.417	.322	.453	.634
		4th	59	29.7	3.97	.008	.311	.113	.613
		5th	65	30.6	4.86	–.387	.297	–.532	.586
Value of Reading	♀	3rd	59	32.6	4.99	–1.203	.311	.331	.613
		4th	63	31.9	4.58	–.643	.302	.124	.595
		5th	64	31.8	4.55	–.753	.299	.446	.590
	♂	3rd	58	28.9	6.83	–.650	.314	.104	.618
		4th	58	31.4	5.23	–1.038	.314	2.564	.618
		5th	66	27.2	5.82	–.464	.295	.166	.582
Incorporating Reading at Home	♀	3rd	61	12.4	2.44	.455	.306	.328	.604
		4th	66	12.9	3.09	.407	.295	–.605	.582
		5th	65	12.0	2.63	–.007	.297	–.078	.586
	♂	3rd	58	11.0	3.22	.444	.314	.285	.618
		4th	60	12.2	2.94	.063	.309	–.681	.608
		5th	67	11.2	2.46	–.028	.293	–1.128	.578
Teacher Modeling	♀	3rd	62	11.4	2.91	–.369	.304	–.156	.599
		4th	66	11.8	2.44	–.212	.295	–.730	.582
		5th	65	10.6	2.63	.014	.297	–.587	.586
	♂	3rd	60	10.5	2.92	–.097	.309	–.901	.608
		4th	60	11.4	2.78	–.393	.309	–.383	.608
		5th	68	10.0	2.48	.005	.291	.589	.574
Student Choice	♀	3rd	61	9.6	2.16	–1.007	.306	.696	.604
		4th	65	9.5	1.77	–.556	.297	–.186	.586
		5th	65	9.6	1.82	–.278	.297	–.993	.586
	♂	3rd	60	8.5	2.42	–.309	.309	–.901	.608
		4th	60	9.4	1.98	–.496	.309	–.434	.608
		5th	68	8.3	2.25	–.428	.291	–.386	.574
Social Interaction	♀	3rd	59	13.9	2.20	–.013	.311	–.025	.613

Table 25 Continued

	4th	65	13.4	2.33	–.370	.297	1.173	.586
	5th	64	13.9	2.25	–.508	.299	.262	.590
♂	3rd	60	12.8	2.79	.441	.309	.940	.608
	4th	58	13.0	2.19	–.165	.314	.259	.618
	5th	65	12.5	3.04	.288	.297	–.469	.586

Teacher Rating Scale

Teacher rating of reading motivation. As an additional measure of reading motivation, a teacher rating scale (TRS) of motivation was utilized to evaluate students' reading motivation (see Appendix C). This scale contains a five-point Likert-type response scale (1 = *far under the class average*; 5 = *far above the average*) and required teachers to rate each child's current reading motivation relative to their classmates. Table 26 displays the results of the teacher rating scale by gender, grade, and gender by grade.

Table 26. Teacher Rating Scale (TRS) of Reading Motivation: Rating Frequencies.

	Gender		Grade		
Rating	♀	♂	3rd	4th	5th
1 – Far under the class average	15	20	11	13	11
2 – Slightly under the class average	29	44	34	20	19
3 – At the class average	50	64	38	38	38
4 – Slightly above the average	49	39	24	25	39
5 – Far above the average	48	20	16	26	26

	Gender x Grade					
	♀			♂		
Rating	3rd	4th	5th	3rd	4th	5th
1 – Far under the class average	4	6	5	7	7	6
2 – Slightly under the class average	14	10	5	20	10	14
3 – At the class average	19	15	16	19	23	22
4 – Slightly above the average	12	16	21	12	9	18
5 – Far above the average	13	18	17	3	8	9

Teacher rating of reading achievement. As an additional measure of reading achievement, a teacher rating scale (TRS) of achievement was utilized to evaluate students' reading achievement (see Appendix C). This scale contains a five-point Likert-type response scale (1 = *far under the class average*; 5 = *far above the average*) and required teachers to rate each child's current reading achievement relative to their classmates. Table 27 displays the results of the teacher rating scale of achievement by gender, grade, and gender by grade.

Table 27. Teacher Rating Scale (TRS) of Reading Achievement: Rating Frequencies.

	Gender		Grade		
Rating	♀	♂	3rd	4th	5th
1 – Far under the class average	13	17	10	12	8
2 – Slightly under the class average	31	39	24	25	21
3 – At the class average	52	53	39	35	31
4 – Slightly above the average	44	48	33	24	35
5 – Far above the average	51	29	16	26	38

	Gender x Grade					
	♀			♂		
Rating	3rd	4th	5th	3rd	4th	5th
1 – Far under the class average	3	7	3	7	5	5
2 – Slightly under the class average	12	10	9	12	15	12
3 – At the class average	22	17	13	17	18	18
4 – Slightly above the average	14	14	16	19	10	19
5 – Far above the average	11	17	23	5	9	15

MCA Scores

All student participants completed the Minnesota Comprehensive Assessment (MCA; Minnesota Department of Education, 2014a). This standard-based, statewide accountability assessment is used to measure reading achievement. Once the MCA tests

were completed, students received an achievement score coinciding with one of four levels: *does not meet the standards* (1), *partially meets the standards* (2), *meets the standards* (3), or *exceeds the standards* (4). Students meeting or exceeding the standards are considered proficient, as they demonstrate consistent and accurate skills needed to successfully interact with the complexity of reading at their grade level, according to the Minnesota Academic Standards. Table 28 displays the results of the MCA assessment by gender, grade, and gender by grade.

Table 28. Ratings from Minnesota Comprehensive Assessment (MCA) Scores: Rating Frequencies.

	Gender		Grade		
Rating	♀	♂	3rd	4th	5th
1 – Does not meet standards	38	41	37	26	16
2 – Partially meets standards	34	49	16	37	30
3 – Meets standards	90	83	56	51	66
4 – Exceeds standards	28	15	13	8	22

	Gender x Grade					
	♀			♂		
Rating	3rd	4th	5th	3rd	4th	5th
1 – Does not meet standards	19	13	6	18	13	10
2 – Partially meets standards	7	17	10	9	20	20
3 – Meets standards	29	28	33	27	23	33
4 – Exceeds standards	6	6	16	7	2	6

Reading Benchmark Scores

Fountas and Pinnell (2008) developed the Reading Benchmark Assessment (RBA) to identify a student's independent and instructional reading level. When using their text level gradient, books are leveled from A to Z, with A being the easiest and Z being the most difficult to read. This leveled continuum correlates with grade levels (see

Appendix H). Classroom teachers administered the reading benchmarks to each student in the form of a one-on-one conference. From this conference, teachers identified a student's instructional reading level, coinciding with one of four levels: *does not meet expectations* (1), *approaches expectations* (2), *meets expectations* (3), or *exceeds expectations* (4). Table 29 displays the results of the benchmark assessment by gender, grade, and gender by grade.

Table 29. Ratings from Reading Benchmark Assessment (RBA) Scores: Rating Frequencies.

	Gender		Grade		
Rating	♀	♂	3rd	4th	5th
1 – Does not meet expectations	25	37	12	26	24
2 – Approaches expectations	19	12	13	10	8
3 – Meets expectations	18	23	18	15	8
4 – Exceeds expectations	130	117	79	74	94

	Gender x Grade					
	♀			♂		
Rating	3rd	4th	5th	3rd	4th	5th
1– Does not meet expectations	8	12	9	8	14	15
2 – Approaches expectations	9	5	5	4	5	3
3 – Meets expectations	8	7	3	10	8	5
4 – Exceeds expectations	40	42	48	39	32	46

All Rating Correlation Matrix

Table 30 displays a correlation matrix for all items used in the study. After reviewing the matrix, many items were found to be significant. Further, ten correlations met the .5 or greater criteria (Taylor, 1990) and are shaded below. Variables in Table 30 are coded as follows: 1 = *gender*, 2 = *grade*, 3 = *self-concept*, 4 = *value of reading*, 5 = *reading at home*, 6 = *teacher modeling*, 7 = *student choice*, 8 = *social interaction*, 9 =

teacher rating of reading motivation, 10 = *ratings from MCA*, 11 = *ratings from RBA*, and 12 = *teacher rating of reading achievement*.

Table 30. All Variables Correlation[1] Matrix – All Participants.

	Variable										
Variable	2	3	4	5	6	7	8	9	10	11	12
1	.01	–.05	–.26**	–.17**	–.12*	–.19**	–.19**	–.19**	–.09	–.06	–.11*
2		–.05	–.09	–.02	–.09	–.02	–.02	.12*	.14**	–.01	.13**
3			.33**	.24**	.16**	.31**	.69**	.41**	.42**	.48**	.49**
4				.54**	.62**	.70**	.66**	.32**	.10*	.06	.13**
5					.36**	.44**	.43**	.20**	.13**	.06	.14**
6						.46**	.38**	.12*	–.08	–.01	.02
7							.46**	.24**	.12*	.12*	.18**
8								.37**	.29**	.28**	.33**
9									.57**	.49**	.67**
10										.57**	.66**
11											.70**

[1] for two rank variables, Spearman *rho*; for two continuous variables, Pearson *r*
* $p < .01$, ** $p < .001$

Research Question 1

What is the level of elementary students' motivation to read?

Two sources of data were used to answer this research question and are displayed in Table 31. First, in order to gain a better understanding of students' reading motivation levels, the MRP was utilized. In order to differentiate the point distributions related to the two subscales (self-concept and value) of the MRP, means and standard deviations were computed together and separately. The self-concept scale and value scale each contained 10 items (see Appendix M). With a possible score of four points per item, each scale could total a maximum score of 40 points. These scales combined, could total a maximum score of 80 points. In addition, the TRS of each student's reading motivation was included in the analysis. This scale contained a five-point Likert-type response scale

(1 = *far under the class average*; 5 = *far above the average*) and required teachers to rate each child's reading motivation relative to their classmates.

Sample size (*N*), mean (*M*), and standard deviations (*SD*) have been provided for each scale. Further, quartiles and a quintile were computed to differentiate points beyond the mean. Quartiles divided data from the MRP and subscales into four equal parts. The range presented in the table represents a series of possible scores that fit into each of the four equal parts. The percentage under each range is the percentage of students who scored within that quartile. Since the TRS was a five-point Likert-type response scale, a quintile was used, dividing the data into five equal parts.

Overall, students displayed a high level of motivation to read with all but 1% of the study population in the upper two quartiles, and the largest percentage in the fourth quartile (59%). Results are consistent with the two subscales on the MRP (self-concept and value) suggesting that students not only have high self-concepts as readers, but also value the task of reading. For the self-concept subscale, all but .8% of the population was located in the upper two quartiles, with the largest percentage in the fourth quartile (52%). For the value subscale, all but 6% of the population was located in the upper two quartiles, with the largest percentage in the fourth quartile (58%). In addition, the means for the two subscales were very similar (self-concept = 30.8 and value = 30.6) proposing that students share similar beliefs regarding their self-concept as a reader and how much they value reading.

Results related to the TRS of student motivation displayed different outcomes than results of student responses to the MRP. The percentages are varied across all five quintiles. Further, the largest percentage of the study population is displayed in the

middle quintile (30%). Therefore, there appears to be a discrepancy between how students and teachers view students' reading motivation.

Table 31. Elementary Students' Motivation to Read.

Variable (Test)	*N*	*M*	*SD*	Range of Student Scores (Percentage of Respondents in Each Range)				
				0→20	21→40	41→60	61→80	
MRP	359	61.4	8.10	0	1%	39%	59%	
				0→10	11→20	21→30	31→40	
a. Self-Concept	370	30.8	4.22	0	.8%	46%	52%	
b. Value	368	30.6	5.69	0	6%	35%	58%	
				1	2	3	4	5
TRS	378	3.2	1.21	9%	19%	30%	23%	17%

Research Question 2

What are the key factors relating to elementary students' motivation to read?

Two sources of data were used to answer Research Question 2 and are displayed in Tables 32 and 33. First, the MRP profile was utilized, including 12 supplementary questions added to the MRP by the researcher to address incorporating reading at home, teacher modeling, student choice, and social interaction. In addition, a TRS of each student's reading motivation was included in the analysis.

First, a correlation analysis (Table 32) was completed to test the relationship between constructs (incorporating reading at home, teacher modeling, student choice, and social interaction). Due to the large population in this study, many factors presented statistically positive significant correlations. Further, 12 correlations met the .5 or greater criteria (Taylor, 1990) and are shaded below. Interestingly, the value of reading subscale

from the MRP strongly positively correlated with all four additional factors added to the MRP (incorporating reading at home, teacher modeling, student choice, and social interaction). However, only one factor (student choice) strongly positively correlated with the self-concept subscale from the MRP.

Table 32. Correlation[1] Matrix.

	Variable						
Variable	2	3	4	5	6	7	8[2]
1 MRP	.75**	.87**	.50**	.52**	.65**	.82**	.50**
2 Self-Concept		.33**	.24**	.16**	.31**	.69**	.41**
3 Value of Reading			.54**	.62**	.70**	.66**	.32**
4 Reading at Home				.36**	.44**	.43**	.20**
5 Teacher Modeling					.46**	.38**	.12*
6 Student Choice						.46**	.27**
7 Social Interaction							.37**

[1] for two rank variables, Spearman *rho*; for two continuous variables, Pearson *r*
[2] 8 stands for the variable, Teacher Rating of Reading Motivation
* $p < .01$, ** $p < .001$

Next, a hierarchical regression (Table 33) including all four factors added to the MRP (incorporating reading at home, teacher modeling, student choice, and social interaction) as predictors of motivation to read, and motivation (overall MRP, self-concept, value, and TRS of motivation) as the outcome variable was conducted to determine if one factor was a stronger predictor of motivation to read than the other input variables. In order to determine which independent variables had a greater effect on a student's reading motivation level, *Beta* coefficients were utilized. The unstandardized coefficient (B), standard error (*SE* B), probability (*p*), and standardized coefficient (*Beta*) were also provided for each scale.

Table 33. Results of Multiple Regression Analyses: Predicting Motivation to Read.

Variable	B	*SE* B	*p*	*Standardized Beta*	R^2
1. Overall MRP					.786
Home	.16	.083	.05	.056	
Model	.39	.086	<.001	.135	
Choice	1.04	.118	<.001	.275	
Social	2.00	.095	<.001	.620	
2. Self-Concept					.494
Home	-.08	.067	.18	-.059	
Model	-.17	.069	.01	-.113	
Choice	.09	.094	.32	.047	
Social	1.24	.076	<.001	.739	
3. Value					.716
Home	.24	.067	<.001	.121	
Model	.56	.069	<.001	.271	
Choice	.96	.095	<.001	.362	
Social	.76	.076	<.001	.342	
4. TRS of Motivation					.156
Home	.22	.025	.38	.050	
Model	-.03	.026	.17	-.079	
Choice	.06	.036	.06	.116	
Social	.16	.028	<.001	.331	

Notes. B is an unstandardized coefficient, *SE* B is B's standard error, and *p* the probability B differs from 0. *Beta* is a standardized coefficient (number of standard deviations outcome will change if predictor changes 1 standard deviation).

For the first regression represented in Table 33, the four factors – incorporating reading at home, teacher modeling, student choice, and social interaction – were entered as predictors of a student's overall motivation to read (self-concept and value together). Results suggested that 78.6% of the variability (R^2) in a participating student's motivation to read was being accounted for by these four predictors. Further, all four factors tested statistically significant at $p < .05$ and three at $p < .001$ (excluding incorporating reading at home). Based on the size of the *Beta* coefficient, the order of factors as they contributed

to variability included social interaction (.620), student choice (.275), teacher modeling (.135), and incorporating reading at home (.056).

For the second regression represented in Table 33, the four factors – incorporating reading at home, teacher modeling, student choice, and social interaction – were entered as predictors of the MRP subscale of self-concept. Results suggested that 49.4% (R^2) of the variability in a student's self-concept as a reader was being accounted for by these four predictors. Therefore, collectively, all four factors contributed to a student's self-concept as a reader. Further, two factors tested statistically significant at $p < .05$ (social interaction and teacher modeling). Based on the size of the *Beta* coefficient, social interaction (.739) contributed the most variability.

For the third regression represented in Table 33, the four factors – incorporating reading at home, teacher modeling, student choice, and social interaction – were entered as predictors of the MRP subscale value. Results suggested that 71.6% of the variability (R^2) in the value students place on reading was being accounted for by these four predictors. Further, all four factors tested statistically significant at $p < .001$. Based on the size of the *Beta* coefficient, the order of factors as they contribute to variability included student choice (.362), social interaction (.342), teacher modeling (.271), and incorporating reading at home (.121). With the numbers so close, collectively all four factors appeared to greatly contribute to a student's value for reading.

For the fourth regression represented in Table 33, the four factors – incorporating reading at home, teacher modeling, student choice, and social interaction – were entered as predictors of the TRS of student reading motivation. Results suggested that only 15.6% of the variability (R^2) in the TRS of motivation was being accounted for by these

four predictors. Further, social interaction was the only factor that tested statistically significant at $p < .001$ with a *Beta* coefficient of .331.

Research Question 3

What is the relationship between elementary students' motivation to read and their academic achievement in reading?

Five sources of data were used to answer Research Question 3 and are displayed in Table 34. First, the MRP profile was utilized, excluding 12 supplementary questions added to the MRP by the researcher. In addition, the TRS of each child's reading motivation and reading achievement level was included in the analysis. Also, the MCA and RBA were included.

Table 34 displays a correlation matrix for all items used for this question. After reviewing the matrix, it appeared most items from the motivation scales (overall motivation, self-concept, value, and TRS of motivation) positively significantly correlated with the achievement scales (MCA, RBA, and TRS of achievement), with the exception of the value subscale. These correlations are shaded in Table 34. Interestingly, the only achievement scale that the value of reading subscale positively significantly correlated with was the TRS of reading achievement.

As stated previously, multiple regressions were attempted to examine the predictive relationship of reading motivation on reading achievement. However, due to multicollinearity multiple regressions were not presented.

Table 34. Correlation[1] Coefficients for Relationships Between Elementary Students' Motivation to Read and Their Academic Achievement in Reading.

	Variable			
Variable	Self-Concept	Value	Overall MRP	TRS Motivation
MCA	.440**	.096	.305**	.576**
RBA	.476**	.053	.297**	.508**
TRS of Achievement	.505**	.123*	.369**	.674**

[1] for two rank variables, Spearman *rho*; for a rank and a continuous variable, point-biserial correlation

* $p < .05$, ** $p < .01$

Research Question 4a

Are there significant grade and gender differences in elementary students' motivation to read and their reading achievement?

Five sources of data were used to answer Research Question 4a and are displayed in Tables 35 to 38. First, the MRP profile was utilized, excluding the 12 supplementary questions added to the MRP by the researcher. In addition, the TRS of each child's reading motivation and reading achievement level was included in the analysis. Also, the MCA and RBA were included. Levene's tests for equivalence of error variances were applied and error variances were not equal for value, MCA, and RBA scores.

In order to address this question, a 3 (third, fourth, and fifth grade) x 2 (boys, girls) factorial ANOVA was conducted for self-concept, MRP, TRS of motivation, and TRS of achievement. First, by analyzing Table 35, a significant main and interaction effect due to gender and grade level was evident and will be further explained below. Main effects of gender were examined in Table 36. Results were used to analyze the mean differences relating reading motivation to gender, along with reading achievement to gender. Main effects of grade level were examined in Table 37. Results were used to

compare the mean differences relating reading motivation to grade level, along with reading achievement to grade level.

For the three variables that did not meet ANOVA assumption of equal error variances (value, MCA, and RBA), non-parametric Kruskal-Wallis tests of rank order (the usual non-parametric alternative to factor ANOVA) were initially considered. After consulting with an academic statistician who pointed out that the deviations from normality were not so great as the robustness of the ANOVA, it was decided to proceed with ANOVAs.

A separate analysis was conducted for each of the dependent variables mentioned above. These analyses were tested for statistical significance at $p < .05$. The results below are organized by each of the dependent variables related to gender (Table 36), grade level (Table 37), and gender and grade (Table 38).

Table 35. Main and Interaction Effects of Elementary Students' Motivation to Read and Their Reading Achievement.

Variables	*MS*	*DF (within)*	*F Value*	*P Value*
Self-Concept: MS (within) = 17.654				
Gender	21.62	364	1.22	.269
Grade	62.03	364	3.51	.031
Gender by Grade	.89	364	.05	.951
Value: MS (within) = 28.948				
Gender	793.16	362	27.40	.000
Grade	148.79	362	5.14	.006
Gender by Grade	147.92	362	5.11	.006
MRP: MS (within) = 62.506				
Gender	1027.45	353	16.43	.000
Grade	84.28	353	1.34	.261
Gender by Grade	128.24	353	2.05	.130
TRS of Motivation: MS (within) = 1.410				
Gender	21.83	372	15.48	.000
Grade	4.85	372	3.44	.033
Gender by Grade	.04	372	.03	.969
MCA: MS (within) = 0.864				
Gender	3.33	372	3.86	.050
Grade	5.55	372	6.43	.002
Gender by Grade	1.39	372	1.61	.201
RBA: MS (within) = 1.325				
Gender	2.38	375	1.80	.180
Grade	2.20	375	1.66	.190
Gender by Grade	.20	375	.15	.858
TRS of Achievement: MS (within) = 1.462				
Gender	8.45	371	5.77	.017
Grade	6.00	371	4.10	.017
Gender by Grade	.08	371	.06	.941

Note. *DF (between)* gender = 1, grade = 2, gender by grade = 3 for all tests.

Table 36. Elementary Students' Motivation to Read and Their Reading Achievement – by Gender.

Variable	Female (n = 179)		Male (n = 170)	
	M	*SD*	*M*	*SD*
Self-Concept	31.1	3.95	30.6	4.43
Value	32.1	4.68	29.0**	6.21
MRP	63.3	7.09	59.6**	8.71
TRS of Motivation	3.4	1.23	2.9**	1.14
MCA	2.6	0.95	2.4*	0.90
RBA	3.3	1.07	3.2	1.18
TRS of Achievement	3.5	1.22	3.2*	1.18

* $p < .05$, ** $p < .001$

Table 37. Elementary Students' Motivation to Read and Their Reading Achievement – by Grade.

Variable	Grade 3 (n = 111)		Grade 4 (n = 113)		Grade 5 (n = 125)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Self-Concept	31.4	4.12	30.1	3.88	30.9	4.47
Value	30.6	6.32	31.7	4.87	29.6	5.67
MRP	62.1	8.26	62.0	7.50	60.6	8.50
TRS of Motivation	3.0	1.18	3.2	1.25	3.3	1.19
MCA	2.4	1.02	2.4	0.87	2.7	0.88
RBA	3.3	1.02	3.1	1.17	3.3	1.16
TRS of Achievement	3.1	1.15	3.2	1.22	3.5	1.22

Table 38. Elementary Students' Motivation to Read and Their Reading Achievement – by Gender and Grade.

Variable	Female			Male		
	3rd	4th	5th	3rd	4th	5th
Self-Concept						
M	31.6	30.4	31.1	31.3	29.7	30.6
SD	3.81	3.86	4.19	4.39	3.97	4.86
Value						
M	32.6	31.9	31.8	28.9	31.4	27.2
SD	4.99	4.58	4.55	6.83	5.23	5.82
MRP						
M	64.4	62.2	62.7	59.7	61.2	58.2
SD	6.90	7.22	7.17	8.95	7.74	9.21
TRS of Motivation						
M	3.2	3.4	3.6	2.7	3.0	3.1
SD	1.21	1.30	1.18	1.06	1.18	1.15
MCA						
M	2.3	2.4	2.9	2.3	2.2	2.5
SD	1.03	.92	.87	1.03	.84	.85
RBA						
M	3.3	3.2	3.3	3.3	2.9	3.1
SD	.96	1.19	1.14	1.07	1.26	1.25
TRS of Achievement						
M	3.2	3.3	3.7	3.0	3.0	3.3
SD	1.12	1.31	1.22	1.15	1.20	1.21

Self-Concept

The Levene's test for self-concept ($p = .20$) indicated error variances were not statistically different. Univariate factorial ANOVA indicated no statistically significant main effect of gender ($p = .269$), a main effect of grade ($p = .031$), and no interaction ($p = .951$). Follow-up Bonferroni contrasts showed fourth grade mean (30.1) less than the third grade mean (31.4) but not different than the fifth grade mean (30.9). In addition, third and fifth grade means were not statistically different.

Value

The Levene's test for value (p = .014) indicated error variances were statistically different. ANOVA displayed a statistical main effect of both gender (p < .001) and grade (p = .006), as well as an interaction (p = .006). Bonferroni contrasts (p.05/3 = .017) of the interaction means revealed third grade girls valued reading more than third grade boys, $t(121) = 3.786$, p = .0002. No gender difference related to fourth grade girls and boys was present, $t(124) = 0.462$, p = .644. Lastly, results revealed fifth grade girls valued reading more than fifth grade boys, $t(132) = 4.871$, p = .0001. Overall, girls displayed greater means related to their value for reading than boys, significantly so in third and fifth grade. Also, with an exception to fourth grade boys, results indicated a decrease in value as students advanced in grade level.

Motivation

The Levene's test for motivation (p = .116) indicated error variances were not statistically different. A statistical main effect of gender (p < .001) was present when the two subscales from the MRP were combined. Similar to the previous scale, girls displayed greater means (63.3) related to their overall motivation level than boys (59.6). No main effect of grade level or interaction was present for this scale.

TRS of Reading Motivation

The Levene's test for TRS of reading motivation (p = .304) indicated error variances were not statistically different. Results displayed a statistical main effect of both gender (<.001) and grade level (.033). Teachers rated girls (3.4) higher than boys (2.9) on their reading motivation. In addition, Bonferroni *post hoc* contrasts confirmed fifth grade mean (3.3) higher than third grade mean (3.0) but neither statistically different

than the fourth grade mean (3.2). Means alone indicate an increase in teacher ratings as students advanced in grade level. No interaction was present for this scale.

MCA

The Levene's test for MCA (p = .001) indicated error variances were statistically, if not practically, different. When analyzing the mean levels, a statistical main effect was present for both gender (p = .050) and grade (p = .002). In general, girls performed better (2.6) on the MCA reading test than boys (2.4). Follow-up Bonferroni contrasts revealed fifth grade students performed better (2.7) on the MCA than third (2.4) and fourth grade (2.4) students. In addition, third and fourth grade student performances were not statistically different. No interaction was present for this scale.

RBA

The Levene's test for RBA (p = .034) indicated error variances were statistically different. Results related to this achievement score presented no statistically significant main effects of gender or grade level. No interaction was present for this scale.

TRS of Reading Achievement

The Levene's test for TRS of achievement (p = .462) indicated error variances were not statistically different. Results displayed a statistical main effect of both gender (p = .017) and grade level (p = .017). Teachers rated girls higher (3.5) than boys (3.2) on their reading achievement. Follow-up Bonferroni contrasts confirmed fifth grader's achievement levels were rated higher (3.5) than third grade students (3.1), while neither were statistically different than fourth grade student ratings (3.2). No interaction was present for this scale.

Research Question 4b

Are there significant grade and gender differences in the relationship between elementary students' motivation to read and their reading achievement?

Five sources of data were used to answer this research question. First, the MRP profile (including the two subscales) was utilized, excluding the 12 supplementary questions added to the MRP by the researcher. In addition, the TRS of each child's reading motivation and reading achievement level was included in the analysis. Also, the MCA and RBA were included. To address this question, a correlation analysis was conducted for the factors mentioned. Results were analyzed in order to evaluate relationships between constructs. In addition, the relationship between motivation and achievement was compared for statistical differences across gender and grade level.

Table 39 displays the correlation matrix for all items used for this question. The correlation coefficient, sample (*N*), and indices (a, b, c) indicating statistical differences between groups are provided for each scale.

Table 39. Relationship Between Students' Motivation to Read and Their Reading Achievement.[1]

Variable	MCA			RBA			TRS of Achievement		
Self-Concept (gender, grade)									
♀ 3rd	.21	(61)	a	.35**	(61)	a	.42**	(62)	a
4th	.56**	(63)	b	.42**	(65)	a	.56**	(64)	a
5th	.43**	(64)	a,b	.47**	(64)	a	.56**	(63)	a
♂ 3rd	.25	(55)	a	.33*	(55)	a	.46**	(54)	a
4th	.60**	(57)	b	.49**	(58)	a,b	.44**	(56)	a
5th	.56**	(65)	b	.68**	(65)	b	.55**	(65)	a
Value									
♀ 3rd	.09	(58)	a	.17	(58)	a,b	.25	(59)	a
4th	.11	(61)	a	–.14	(63)	a	.13	(62)	a
5th	.11	(64)	a	.05	(64)	a	.16	(63)	a
♂ 3rd	.03	(58)	a	.008	(58)	a	–.004	(57)	a
4th	.10	(56)	a	–.12	(57)	a	.05	(55)	a
5th	.23	(66)	a	.41**	(66)	b	.21	(66)	a
MRP									
♀ 3rd	.18	(58)	a	.33*	(58)	a	.42**	(59)	a
4th	.37**	(60)	a	.14	(62)	a	.41**	(61)	a
5th	.32*	(63)	a	.30*	(63)	a	.42**	(62)	a
♂ 3rd	.17	(54)	a	.19	(54)	a	.24	(53)	a
4th	.37**	(56)	a	.17	(57)	a	.25	(55)	a
5th	.44**	(63)	a	.62**	(63)	b	.43**	(63)	a
TRS of Motivation									
♀ 3rd	.57**	(61)	a	.43**	(61)	a,b	.58**	(62)	a
4th	.65**	(63)	a	.64**	(65)	b	.81**	(65)	c
5th	.49**	(64)	a	.31*	(64)	a	.67**	(64)	a,b
♂ 3rd	.62**	(61)	a	.58**	(61)	b	.72**	(60)	b,c
4th	.51**	(56)	a	.48**	(57)	a,b	.58**	(57)	a
5th	.55**	(69)	a	.50**	(69)	a,b	.50**	(69)	a

Notes. Fisher *r*-to-*z* transformations were calculated to assess the difference between two correlation coefficients. Correlation coefficients are assessed for differences vertically. Different letter (a,b,c) indices indicate statistical difference (one-tailed, $p < .05$)

[1] for two rank variables, Spearman *rho*; for a rank and a continuous variable, point-biserial correlation

* $p < .05$, ** $p < .01$

Self-Concept and Achievement

When reviewing the correlation matrix, the self-concept index of motivation for most grade and gender groups significantly positively correlated with the three indices of achievement (MCA, RBA, and TRS of achievement). Results suggested a strong relationship between a student's self-concept in reading and their achievement performance in this area. For example, the correlation coefficients related to the MCA achievement index accounted for 18% to 36% of shared variability for fourth and fifth grade girls and boys. Interestingly, the coefficients for third grade girls and boys were significantly less, accounting for only 4.4% to 6.2%. Results were consistent with the RBA achievement index related to self-concept. Correlation coefficients for fourth and fifth grade girls and boys accounted for 17% to 46% shared variability and only 10.8% to 12.2% for third grade girls and boys. Lastly, results displayed a large shared variability between self-concept and TRS of achievement for fourth and fifth grade girls and boys (19.3% - 31.3%) and a smaller shared variability for third grade girls and boys (17.6% - 21.1%). In addition, the indices (a,b,c) indicating statistical differences between groups suggested that fifth grade boys were statistically different than the other grade and gender groups related to the RBA (46.2% of shared variability).

Results from the correlation table implied a difference in the relationship between reading motivation (specifically self-concept) and achievement for both girls and boys in third grade. In other words, these students are not correlating their self-concept for reading with the achievement indices mentioned above like fourth and fifth grade students. These third grade correlations are shaded in Table 39.

Value and Achievement

When reviewing the correlation matrix, none of the grade or gender subgroups significantly positively correlated with the three indices of achievement (with the exception of fifth grade boys). A small percentage of shared variability was present for the MCA, RBA, and TRS of achievement (ranging from 0% to 6.2%). Results suggested a weak relationship between the value a student places on reading and their achievement performance in this area.

According to correlation coefficients and indices (a,b,c) indicating statistical differences between groups, a strong positive correlation (16.8% of shared variability) between value and the RBA was present for fifth grade boys. Indices suggested they are also statistically different from other subgroups. In addition, although correlation coefficients for fifth grade boys related to the MCA and TRS of achievement was not significantly correlated, they displayed a better association than most other age and gender groups. This pattern suggested a stronger relationship between reading value and achievement for fifth grade boys. These results are shaded in Table 39.

MRP and Achievement

The MRP is a summation of the self-concept and value subscales; therefore, it is not surprising that the associations were between the subscale results. When reviewing the correlation matrix, a portion of the grade and gender groups significantly positively correlated with the three indices of achievement (shaded in Table 39). For example, the correlation coefficients related the three indices of achievement accounted for 9 to 36% of shared variability for fifth grade girls and boys. In addition, the indices (a,b,c) indicating statistical differences between groups confirmed fifth grade boys were

statistically different than the rest related to the RBA (38.4% of shared variability). Results suggested a strong relationship between a fifth graders overall reading motivation (two subscales combined) and their achievement performance in this area. No additional consistent patterns were observable for other subgroups related to the MRP.

TRS of Motivation and Achievement

When reviewing the correlation matrix, the TRS of motivation for all grade and gender groups significantly positively correlated with the three indices of achievement (ranging from 9.6% to 65.6% of shared variability). Results suggested a strong relationship between a teacher's ratings of students' motivation and achievement levels. However, calculations related to the correlation between the TRS of motivation and achievement may present cofounding results as teachers completed both scales.

In addition, the indices (a, b, c) indicating statistical differences between groups suggested that all grade and gender groups associated similar on the MCA. In relation to the RBA, fourth (40.9%) and fifth (9.6%) grade girls and third (33.6%) grade boys associated different than others subgroups. Lastly, third (33.6%) grade girls, fourth (33.6%) and fifth (6.2%) grade boys, and fourth (65.6%) grade girls associated different than other subgroups on the TRS of achievement. These results are shaded in Table 39.

Summary of Findings

Four research questions and hypotheses guided the analyses outlined above. Certain hypotheses were supported with exceptions. For example, the first research question examined the level of elementary students' motivation to read. It was hypothesized that in general, students' motivation to read would be low and a larger percentage of the points would come from the questions related to the value subscale than

self-concept. Means and quartiles were computed and revealed that overall, students displayed a high level of motivation to read. Results related to the subscales (value and self-concept) revealed mean scores and quartile distributions to be proportionate to each other. Results related to the TRS of student motivation were more closely aligned with the hypothesis, as percentages of student's level of reading motivation appeared varied across the five quintiles.

Findings associated with the second research question supported the hypothesis outlined in the previous chapter. When examining the key factors related to elementary students' motivation to read, it was hypothesized that all four motivational factors studied (incorporating reading at home, teacher modeling, student choice, and social interaction) would positively correlate with a student's motivation to read. A correlation analysis confirmed all factors were statistically significant with the MRP. However, examining the two subscales (value and self-concept) separately presented varied results. The value subscale strongly positively correlated with all four factors, but only one factor (student choice) strongly positively correlated with the self-concept subscale.

Results related to the third research question also supported the hypothesis outlined in the previous chapter. When examining the relationship between a student's motivation to read and their academic achievement in reading, it was hypothesized there would be significant positive correlations. A correlation analysis revealed all items from the motivational scales (overall motivation, self-concept, and TRS of motivation) significantly positively correlated with the achievement scales (MCA, RBA, and TRS of achievement), with the exception of the value subscale. The only achievement scale that

the value of reading subscale significantly positively correlated with was the TRS of reading achievement.

Lastly, gender and grade differences related to student's reading motivation and academic achievement were examined. Results partially supported the hypotheses stating that overall, girls and students from lower grade levels would display higher levels of reading motivation and reading achievement. A 3 (third, fourth, and fifth grade) x 2 (boys, girls) factorial ANOVA was conducted and found that first, girls displayed greater means related to motivation (overall motivation, value subscale, and TRS of motivation) with the exception of the self-concept subscale (no statistically significant main effect of gender was found). Girls also displayed higher levels of reading achievement on the achievement indices (MCA and TRS of achievement) with the exception of the RBA (no statistically significant main effect of gender was found).

In relation to grade level, no statistical main effect was found related to the overall MRP. However, students from younger grade levels displayed greater means related to the value subscale, third grade students displayed greater means than fourth grade students on the self-concept subscale, and students from older grades displayed greater means related to the TRS of motivation. In addition, fifth grade students overall performed better on the two indices of achievement (MCA and TRS of achievement). No statistical main effect was found related to the RBA of achievement.

The final portion of the fourth research question examined the relationship between a student's motivation to read and their academic achievement in reading in relation to gender and grade. It was hypothesized that overall, girls and students in lower grade levels would display a stronger correlation between reading motivation and

achievement. A correlation analysis was conducted and partially supported the hypothesis.

When reviewing the correlation matrix for the self-concept subscale of reading motivation, most gender and grade level groups significantly positively correlated with the three indices of achievement (MCA, RBA, and TRS of achievement). Specifically, fourth and fifth grade girls and boys presented stronger results than third graders. When reviewing the correlation matrix for the value subscale of reading motivation, none of the gender or grade level subgroups significantly positively correlated with the three indices of achievement (with the exception of fifth grade boys). Fifth grade boys displayed a better association than other gender and age groups on the three indices of achievement (MCA, RBA, and TRS of achievement). Finally, when reviewing the correlation for the TRS of Motivation, all gender and grade level groups significantly positively correlated with the three indices of achievement (MCA, RBA, and TRS of achievement). In addition, all gender and grade level groups associated similar on the MCA. There were no consistent patterns present related to specific subgroups and the other two indices of achievement.

CHAPTER V

DISCUSSION

The discussion below will first review the findings related to the research questions, along with the possible meanings of these findings. A discussion will also take place related to how the findings support or contradict the existing research mentioned previously. Implications for theory, research, and practice will be examined next. The section will conclude with limitations and recommendations for future research.

Summary of Findings and Interpretation of Results

The first goal of this research project was to examine elementary students' level of motivation for reading. A major concern today is that students are not connecting reading with pleasure and therefore are not motivated to read or view it as necessary. Results from empirical studies have found a student's motivation to read somewhat concerning during the later elementary years as they have discovered low levels of reading motivations from students at this age (Applegate & Applegate, 2010; Corcoran & Mamalakis, 2000; Gambrell et al., 1996). In addition, utilizing the expectancy-value theory, results have found a greater number of reading motivation levels coming from the competence beliefs of a reader than the value they place on reading (Applegate & Applegate, 2010).

Findings from this study revealed differing results from past research. Utilizing Gambrell's et al., (1996) Motivation to Read Profile (MRP) findings revealed that overall

students are displaying high levels of motivation to read. In addition, their levels of competence and value related to their reading motivation are comparable, suggesting students view themselves as proficient readers and see value in the task of reading. Along with self-reports, teacher rating scales (TRS) of student motivation were also used as a source for understanding student reading motivation. Results related to this scale are more closely aligned with the empirical research. Student's level of reading motivation appeared varied, as a larger percentage of students were reported as less motivated to read than the students had rated themselves. Therefore, there appears to be a discrepancy between how students and teachers view student reading motivation. One possible explanation is the reliability of the student responses to the self-reports. Due to the age of the participants they may have less understanding of their own reading motivation. Another possible explanation may be that students and teachers have varying perceptions of what constitutes reading motivation. On one hand, students may view reading motivation as their level of motivation to read a book of choice for fun. On the other hand, it might be assumed that teacher beliefs related to student reading motivation relates to how motivated students are to complete curriculum related literacy activities.

The second goal of this research project was to examine the key factors related to elementary students' motivation to read. Findings from this analysis agree with previous research confirming all four factors (student choice, social interaction, teacher modeling, and incorporating reading at home) play a significant role in a student's overall motivation to read (Corcoran & Mamalakis, 2009; Edmunds & Bauserman, 2006; Gambrell et al., 1996; McKool, 2007; Pitcher et al., 2007; Policastro, Mazeski, & McTague, 2010; Ulper, 2011). However, examining the two subscales from the MRP

(value and self-concept) separately presented varied results. The value subscale highly correlated with all four factors, while only one factor (student choice) highly correlated with the self-concept subscale. One explanation may be that factors employed to help students value reading may differ from factors that impact a student's self-concept as a reader. In other words incorporating student choice, social interaction, teacher modeling, and reading at home may help students see value in reading, enhancing their overall reading motivation level. However, in order for a student to hold a high self-concept about themselves as readers, factors other than the ones mentioned above may need to be present.

The third goal of this research project was to examine the relationship between a student's motivation to read and their academic achievement in reading. Findings from this analysis also agree with previous research confirming positive correlations between reading motivation and academic achievement in reading (Cunningham & Stanovich, 1997; Gottfried, 1990; Guthrie, Schafer, & Huang, 2001). Results suggest the higher a student scores on the motivation scales, the higher their academic achievement scores will be. Interestingly, all items from the motivational scales (overall motivation, self-concept, value, and TRS of motivation) correlated with the achievement scales (MCA, RBA, and TRS of achievement), with the exception of the value subscale. These results imply that a student's self image as a reader may impact their reading achievement more than how much they value reading.

The fourth goal of this research project was to first examine gender and grade level differences related to student's reading motivation and academic achievement. Findings from this analysis partially support previous research revealing that overall, girls

displayed greater means related to reading motivation and achievement (Applegate & Applegate, 2010; Smith et al., 2012). As stated previously, one explanation is the possible stereotypical gender roles that are still present in the classroom today. Research suggests that each gender has a set of beliefs and behaviors for certain school subjects that affect their motivation and achievement levels. For example, studies have found that boys report greater levels of motivation and achievement in the areas of mathematics and science and girls in reading and writing (Jacobs et al., 2002; Meece, Glienke, & Burg, 2006).

Consistent with Smith et al. (2012), findings also revealed that students from older grades generally performed better on the indices of achievement. Chall's (1983) model of reading development provides a possible explanation for this finding. As stated previously, this model illustrates that as students move through elementary school, they are required to make a shift from learning to read to reading to learn. This stage requires students to apply their reading ability in order to comprehend more challenging texts. The move from mechanics of reading into the processes that generates meaning making has the potential to affect their achievement level. As students' academic experiences in reading increases, students become more aware of what they need do to be a successful reader.

Lastly, results support past research finding students from younger grade levels displayed greater means related to the value they place on reading (Applegate & Applegate, 2010; Jacobs et al., 2002). As stated previously, Chall's (1983) model of reading development is one possible explanation. When students are required to apply their reading ability in order to comprehend more challenging texts, this has the potential

to affect their pleasure for reading and motivation level.

The final portion of the fourth research question examined the relationship between a student's motivation to read and their academic achievement in reading in relation to gender and grade. Findings from this analysis partially support previous research associated with this topic (Baker & Wigfield, 1999). Related to the self-concept subscale of the MRP, most gender and grade level groups significantly positively correlated with the three indices of achievement (MCA, RBA, and TRS of achievement). However, fourth and fifth grade girls and boys presented stronger results than third graders. Related to the value subscale of the MRP, none of the gender or grade level subgroups significantly positively correlated with the three indices of achievement (with the exception of fifth grade boys). Related to the TRS of Motivation, all gender and grade level groups significantly positively correlated with the three indices of achievement (MCA, RBA, and TRS of achievement). Results suggest a couple things. First, no matter the gender or grade level, a student's self image as a reader may impact their reading achievement more than how much they value reading. However, fourth and fifth grade girls and boys presented stronger results related to these two constructs. A proposed explanation is that as students get older they begin to form a more realistic self-concept about themselves as readers. This self-concept determines their level of motivation to read and degree of achievement. Lastly, related to the TRS of Motivation, with all gender and grade level groups significantly positively correlating with the three indices of achievement (MCA, RBA, and TRS of achievement), results suggest that teacher's perceptions of student motivation closely align with their reading achievement.

In other words, teacher's awareness of their student's reading motivations in relation to their achievement is clear and accurate.

Implications

Continually reinforcing reading motivation can have a large effect on future literacy experiences for students. Therefore, it is essential that reading motivation and the affect it has on reading achievement continue to be investigated. The hope is that findings from this study will contribute to the field of education's overall understanding of this phenomenon. These results have several implications for theory, research, and practice. First, findings are consistent with a current and commonly used theory in the field of education, the expectancy-value theory. The first research question of this study expands the connection between the expectancy-value theory and reading by displaying the impact they have on one another. The results support this theory by affirming that if students see the value in reading and possess confidence in their ability to read, they will have motivation to do so.

This study also helps advance the methodology commonly utilized to examine these topics. Multiple assessment techniques were included to measure reading motivation (student self survey and teacher ratings) and achievement (standardized, performance, and teacher rating assessments). Although these assessment techniques are common in related research, few studies include a combination of them. In addition, few studies include teacher perceptions of student motivations for reading. This study reinforces the importance of collecting multiple forms of assessments in order to provide a more accurate representation of a student's reading motivation and achievement. The hope would be that future studies related to this topic would incorporate a common

methodology in order to increase the validity and reliability of the results. Using multiple sources of data would also determine where and why discrepancies exist.

Also insights from this study have practical implications for various individuals that will help heighten their awareness of the importance of supporting literacy education. These individuals include but are not limited to teachers, parents, administrators, university educators, and pre-service teachers. First, due to the individualized nature of the MRP, if teachers were to administer this survey to students, a differentiated diagnosis for each student would be provided to them. This could be used to help create meaningful literacy experiences for all students involved in the classroom. For example, if a student indicates the belief that peers view them as a poor reader, teachers can be mindful to pair them with students of similar reading abilities in hopes that their self-confidence in reading will increase. If a student indicates minimal value for reading, teachers can be aware of this and take appropriate actions to better understand how to raise the reading value for that individual.

The results of this study also have implications to help teachers make appropriate curricular and instructional decisions for the class as a whole. Data from the research revealed recommended strategies and approaches (student choice, social interaction, and teacher modeling) teachers can implement in order to create an environment where students value reading and in turn, are more motivated to read. For example, teacher modeling was one factor positively contributing to a student's reading motivation. Teachers play an active role in education by valuing and acknowledging the importance of reading. Therefore, implementing teacher modeling in various forms has the potential to positively affect the reading motivation of the students involved. Results will also help

educate families on the importance of reading at home. By sharing this knowledge, family members will be able to apply practices that will likely increase their children's motivation to read.

As stated previously, this study reinforces the importance of collecting multiple forms of assessments in order to provide an accurate representation of students' reading motivation and achievement levels. Utilizing various assessment strategies and techniques will help teachers more precisely determine student's motivation and achievement levels in order to make appropriate accommodations for each learner.

The results of this study also have implications to help administration make appropriate curricular and instructional decisions for their district. Findings highlight the significant relationship between a student's reading motivation and achievement level. Therefore, in order to increase reading achievement in the schools, concentrating on how to improve and support reading motivation in the classroom is necessary. Providing time for inquiry and professional development would help ensure that an appropriate and systematic implementation is in place. In addition, results related to reading motivation and achievement reveals information related to specific gender and grade level groups. Therefore, training and support provided to teachers could be differentiated in its approach, ensuring teachers create meaningful instructional experiences specifically for all student groups.

Results from this study will not only benefit elementary schools, but also education programs at the university level. By bridging the gap between theory and practice, pre-service teachers will be able to see how learned theories are applied in a classroom setting. In order to strengthen college instruction, educators can make students

aware of this issue prior to entering the elementary classroom. Pre-service teachers will also gain a better understanding of what motivates students to read, giving them an idea of what strategies and approaches to incorporate into their reading instruction.

Limitations and Future Directions

Several limitations appeared throughout this study and should be noted, along with future research directions due to these limitations. As stated previously, the current sample came from one school with limited diversity. Therefore, the generalizability of the findings is limited. Future studies investigating participants from multiple locations would reveal if the findings remain the same. Future researchers might consider a replication of this study with a more diverse sample. Applegate and Applegate's (2010) findings suggest that a student's motivation decreases as they get older. Therefore, more research is needed to explore the reasoning behind this phenomenon.

Researchers should also consider exploring the reading motivation levels of boys. Although this study, along with previous studies (Applegate & Applegate, 2010; Corcoran & Mamalakis, 2009) have found that on average boys are less motivated to read than girls, there is little empirical evidence supporting the reasoning behind this idea. In order to improve reading instruction for boys, there is a need for continued research on this topic. A sample consisting of only boys would be beneficial. The findings may provide a better understanding of what motivates boys to read, helping teachers create meaningful instructional experiences specifically for them.

In order to collect additional data on factors motivating students to read (student choice, social interaction, teacher modeling, and incorporating reading at home), 12 supplementary questions were added to the MRP survey by the researcher. Although

results revealed a somewhat less than desirable Cronbach's α on a couple of the scales, it was decided to utilize them as previous literature has deemed these factors essential components to a student's overall motivation to read (Corcoran & Mamalakis, 2009; Edmunds & Bauserman, 2006; McKool, 2007; Ulper, 2011). Results revealed informative information relating to these factors. However, reliability and validity of this instrument is a concern. One future direction for research is the validation of a more reliable scale in order to measure the effects of these factors on reading motivation. In addition, future research should investigate other related variables to determine which combination of factors best predicts reading value and which best predicts the competence beliefs related to their motivation to read.

Lastly, the reliability of the student responses to the self-reports may serve as a limitation. As stated previously, due to the age of the participants they may have less understanding of their own motivation. While the MRP provided very informative information, future research should utilize Gambrell's et al. (1996) interview portion of the MRP in order to provide more in-depth information and better insight on student perspectives of their reading motivations. Interviews with the classroom teachers would also reveal more comprehensive information into if and why discrepancies exist between the student and teacher's perception of student reading motivation.

Conclusion

Continually reinforcing the value of reading can have a large effect on future literacy experiences for students. It is essential that educators and parents listen to student views on reading in order for implementation of successful strategies to be

reinforced. Through the use of the factors mentioned in this study, students will hopefully not only improve their reading skills but also embrace the value of reading and feel confident in their ability to read. The hope is that this study will add to the growing list of research related to the topic of reading motivation and achievement. Dr. Seuss' (1978) words, "The more that you read, the more things you will know. The more that you learn, the more places you'll go" (p. 27) reminds us that reading is essential to helping students succeed in our diverse and changing world.

APPENDICES

Appendix A
Motivation to Read Profile (Expectancy-Value)

Expectancy Questions

3. My friends think I am (a very good reader, a good reader, an ok reader, a poor reader)
5. I read (not as well as my friends, about the same as my friends, a little better than my friends, a lot better than my friends)
7. When I come to a word I don't know, I can (almost always figure it out, sometimes figure it out, almost never figure it out, never figure it out)
9. When I am reading by myself, I understand (almost everything I read, some of what I read, almost none of what I read, none of what I read)
11. I am (a poor reader, an ok reader, a good reader, a very good reader)
13. I worry about what other kids think about my reading (every day, almost every day, once in a while, never)
15. When my teacher asks me a question about what I have read, I (can never think of an answer, have trouble thinking of an answer, sometimes think of an answer, always think of an answer)
17. Reading is (very easy for me, kind of easy for me, kind of hard for me, very hard for me)
19. When I am in a group talking about stories, I (almost never talk about my ideas, sometimes talk about my ideas, almost always talk about my ideas, always talk about my ideas)
21. When I read out loud I am a (poor reader, ok reader, good reader, very good reader)

Value Questions

MRP Question	Type of Value
4. Reading a book is something I like to do (never, not very often, sometimes, often)	Intrinsic
6. My best friends think reading is (really fun, fun, ok to do, not fun at all)	Intrinsic
8. I tell my friends about good books I read (I never do this, I almost never do this, I do this some of the time, I do this a lot)	Utility
10. People who read a lot are (very interesting, interesting, not very interesting, boring	Attainment and Intrinsic
12. I think libraries are (a great place to spend time, an interesting place to spend time, an ok place to spend time, a boring place to spend time)	Intrinsic
14. Knowing how to read well is (not very important, sort of important, important, very important)	Attainment
16. I think reading is (a boring way to spend time, an ok way to spend time, an interesting way to spend time, a great way to spend time)	Intrinsic
18. When I grow up I will spend (none of my time reading, very little of my time reading, some of my time reading, a lot of my time reading)	Utility
20. I would like for my teacher to read books out loud to the class (every day, almost every day, once in awhile, never)	Intrinsic
22. When someone gives me a book for a present, I feel (very happy, sort of happy, sort of unhappy, unhappy)	Intrinsic, Attainment, Utility, and Cost

Appendix B
Motivation to Read Profile

Purpose: to better understand what motivates students to read.

Instructions:
Please listen as your teacher reads each question to you. After hearing all the choices, choose which one best describes you as a reader. This will not be graded, and it will simply be used to understand and improve reading lessons.

Name _____

1) I am in _____.
   a) third grade
   b) fourth grade
   c) fifth grade

2) I am a _____.
   a) girl
   b) boy

3) My friends think I am _____.
   a) a very good reader
   b) a good reader
   c) an ok reader
   d) a poor reader

4) Reading a book is something I like to do _____.
   a) never
   b) not very often
   c) sometimes
   d) often

5) I read _____.
   a) not as well as my friends
   b) about the same as my friends
   c) a little better than my friends
   d) a lot better than my friends

6) My best friends think reading is _____.
   a) really fun
   b) fun
   c) ok to do
   d) not fun at all

7) When I come to a word I don't know, I can _____.
   a) almost always figure it out
   b) sometimes figure it out
   c) almost never figure it out
   d) never figure it out

8) I tell my friends about good books I read.
   a) I never do this
   b) I almost never do this
   c) I do this some of the time
   d) I do this a lot

9) When I am reading by myself, I understand _____.
   a) almost everything I read
   b) some of what I read
   c) almost none of what I read
   d) none of what I read

10) People who read a lot are _____.
   a) very interesting
   b) interesting
   c) not very interesting
   d) boring

11) I am _____.
   a) a poor reader
   b) an ok reader
   c) a good reader
   d) a very good reader

12) I think libraries are _____.
   a) a great place to spend time
   b) an interesting place to spend time
   c) an ok place to spend time
   d) a boring place to spend time

13) I worry about what other kids think about my reading _____.
   a) every day
   b) almost every day
   c) once in a while
   d) never

14) Knowing how to read well is _____.
   a) not very important
   b) sort of important

c) important
d) very important

15) When my teacher asks me a question about what I have read, I _____.
a) can never think of an answer
b) have trouble thinking of an answer
c) sometimes think of an answer
d) always think of an answer

16) I think reading is _____.
a) a boring way to spend time
b) an ok way to spend time
c) an interesting way to spend time
d) a great way to spend time

17) Reading is _____.
a) very easy for me
b) kind of easy for me
c) kind of hard for me
d) very hard for me

18) When I grow up I will spend _____.
a) none of my time reading
b) very little of my time reading
c) some of my time reading
d) a lot of my time reading

19) When I am in a group talking about stories, I _____.
a) almost never talk about my ideas
b) sometimes talk about my ideas
c) almost always talk about my ideas
d) always talk about my ideas

20) I would like for my teacher to read books out loud to the class _____.
a) every day
b) almost every day
c) once in a while
d) never

21) When I read out loud I am a _____.
a) poor reader
b) ok reader
c) good reader
d) very good reader

22) When someone gives me a book for a present, I feel _____.
   a) very happy
   b) sort of happy
   c) sort of unhappy
   d) unhappy

23) * I spend time reading at home.
   a) very often
   b) often
   c) sometimes
   d) never

24) * I have a variety of reading materials at home.
   a) very often
   b) often
   c) sometimes
   d) never

25) * Someone at home reads with me.
   a) very often
   b) often
   c) sometimes
   d) never

26) * I see others at my house reading.
   a) very often
   b) often
   c) sometimes
   d) never

27) * I discuss what I read at home with others.
   a) very often
   b) often
   c) sometimes
   d) never

28) * I would like for my teacher to talk about books he/she likes.
   a) very often
   b) often
   c) sometimes
   d) never

29) * I would like for my teacher to recommend books to read in class.
   a) very often
   b) often

c) sometimes
d) never

30) * Listening to my teacher during reading instruction helps me get excited about reading.
a) very often
b) often
c) sometimes
d) never

31) * Choosing what I read is important to me.
a) very often
b) often
c) sometimes
d) never

32) * I enjoy going to the library to choose books.
a) very often
b) often
c) sometimes
d) never

33) * Having a variety of books in the classroom to choose from is important.
a) very often
b) often
c) sometimes
d) never

34) * I am interested in books I am required to read.
a) very often
b) often
c) sometimes
d) never

REFERENCE:

Gambrell, L. B., Martin Palmer, B., Codling, R. M., & Anders Mazzoni, S. (1996, April). Assessing motivation to read. *The Reading Teacher*, *49*(7), 518-533.

* Supplementary questions added by the researcher to the MRP to collect additional data on factors motivating students to read (student choice, social interaction, teacher modeling, and incorporating reading at home).

Appendix C
Teacher Rating Scales

Teacher Rating Scale (Reading Motivation)

Instructions: Please use the class list provided to you and first rate each child's current reading motivation relative to their classmates. Place that number on the first line next to each child. Next, rate each child's current academic achievement in reading relative to their classmates. Place that number on the second line next to each child. Please use the rating system shown below:

1. Reading Motivation:
1 – Far under the class average
2 – Slightly under the class average
3 – At the class average
4 – Slightly above the average
5 – Far above the average

Teacher Rating Scale (Academic Achievement in Reading)

2. Academic Achievement in Reading:
1 – Far under the class average
2 – Slightly under the class average
3 – At the class average
4 – Slightly above the average
5 – Far above the average

Appendix D
Literature Standards

Reading Benchmarks: Literature K-5 (Common Core Reading Standards for Literature K–5) [RL]

Grade 3 students:		Grade 4 students:		Grade 5 students:	
Key Ideas and Details					
3.1.1.1	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	4.1.1.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	5.1.1.1	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
3.1.2.2	Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.	4.1.2.2	Determine a theme of a story, drama, or poem from details in the text; summarize the text.	5.1.2.2	Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
3.1.3.3	Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.	4.1.3.3	Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).	5.1.3.3	Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).
Craft and Structure					
3.1.4.4	Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language**, including figurative language such as similes**.	4.1.4.4	Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., *Herculean*).	5.1.4.4	Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.
3.1.5.5	Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as *chapter*, *scene*, and *stanza*; describe how each successive part builds on earlier sections.	4.1.5.5	Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.	5.1.5.5	Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
3.1.6.6	Distinguish their own point of view from that of the narrator or those of the characters.	4.1.6.6	Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.	5.1.6.6	Describe how a narrator's or speaker's point of view influences how events are described.
Integration of Knowledge and Ideas					
3.1.7.7	Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).	4.1.7.7	Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.	5.1.7.7	Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
3.1.8.8	(Not applicable to literature)	4.1.8.8	(Not applicable to literature)	5.1.8.8	(Not applicable to literature)

Grade 3 students:		Grade 4 students:		Grade 5 students:	
3.1.9.9	Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).	4.1.9.9	Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures, **including American Indian.**	5.1.9.9	Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.
Range of Reading and Level of Text Complexity					
3.1.10.10	By the end of the year, read and comprehend literature **and other texts** including stories, dramas, and poetry, at the high end of the grades 2-3 text complexity band independently and proficiently. **a. Self-select texts for personal enjoyment, interest, and academic tasks.**	4.1.10.10	By the end of the year, read and comprehend literature **and other texts** including stories, drama, and poetry, in the grades 4-5 text complexity band proficiently and **independently with** scaffolding as needed at the high end of the range. **a. Self-select texts for personal enjoyment, interest, and academic tasks.**	5.1.10.10	By the end of the year, read and comprehend literature **and other texts** including stories, dramas, and poetry at the high end of the grades 4–5 text complexity band proficiently and independently. **a. Self -select texts for personal enjoyment, interest, and academic tasks.**

REFERENCE:
Minnesota Department of Education. (2010). *Minnesota academic standards: English language arts K-12* (pp. 16-17). Retrieved June 11, 2015, from http://education.state.mn.us/MDE/EdExc/StanCurri/K-12AcademicStandards/Reading/index.htm [On web page titled *Reading*, click "Minnesota K-12 Academic Standards in English Language Arts (2010) – 12/31/14," near bottom of page]

Appendix E
Informational Text Standards

Reading Benchmarks: Informational Text K–5 (Common Core Reading Standards for Informational Text K-5) [RI]

Grade 3 students:		Grade 4 students:		Grade 5 students:	
Key Ideas and Details					
3.2.1.1	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	4.2.1.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	5.2.1.1	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
3.2.2.2	Determine the main idea of a text; recount the key details and explain how they support the main idea.	4.2.2.2	Determine the main idea of a text and explain how it is supported by key details; summarize the text.	5.2.2.2	Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
3.2.3.3	Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.	4.2.3.3	Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.	5.2.3.3	Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
Craft and Structure					
3.2.4.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*.	4.2.4.4	Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *grade 4 topic or subject area*.	5.2.4.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*.
3.2.5.5	Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.	4.2.5.5	Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.	5.2.5.5	Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.
3.2.6.6	Distinguish their own point of view from that of the author of a text.	4.2.6.6	Compare and contrast a firsthand and secondhand account, **including those by or about Minnesota American Indians,** of the same event or topic; describe the differences in focus and the information provided.	5.2.6.6	Analyze multiple accounts **by various cultures** of the same event or topic, noting important similarities and differences in the point of view they represent.
Integration of Knowledge and Ideas					
3.2.7.7	Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).	4.2.7.7	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.	5.2.7.7	Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

Grade 3 students:		Grade 4 students:		Grade 5 students:	
3.2.8.8	Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).	4.2.8.8	Explain how an author uses reasons and evidence to support particular points in a text.	5.2.8.8	Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).
3.2.9.9	Compare and contrast the most important points and key details presented in two texts on the same topic.	4.2.9.9	Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.	5.2.9.9	Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
Range of Reading and Level of Text Complexity					
3.2.10.10	By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently. **a. Self-select texts for personal enjoyment, interest, and academic tasks.**	4.2.10.10	By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band **independently** and proficiently, with scaffolding as needed at the high end of the range. **a. Self-select texts for personal enjoyment, interest, and academic tasks.**	5.2.10.10	By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently. **a. Self-select texts for personal enjoyment, interest, and academic tasks.**

REFERENCE:

Minnesota Department of Education. (2010). *Minnesota academic standards: English language arts K-12* (pp. 20-21). Retrieved June 11, 2015, from http://education.state.mn.us/MDE/EdExc/StanCurri/K-12AcademicStandards/Reading/index.htm [On web page titled *Reading*, click "Minnesota K-12 Academic Standards in English Language Arts (2010) – 12/31/14," near bottom of page]

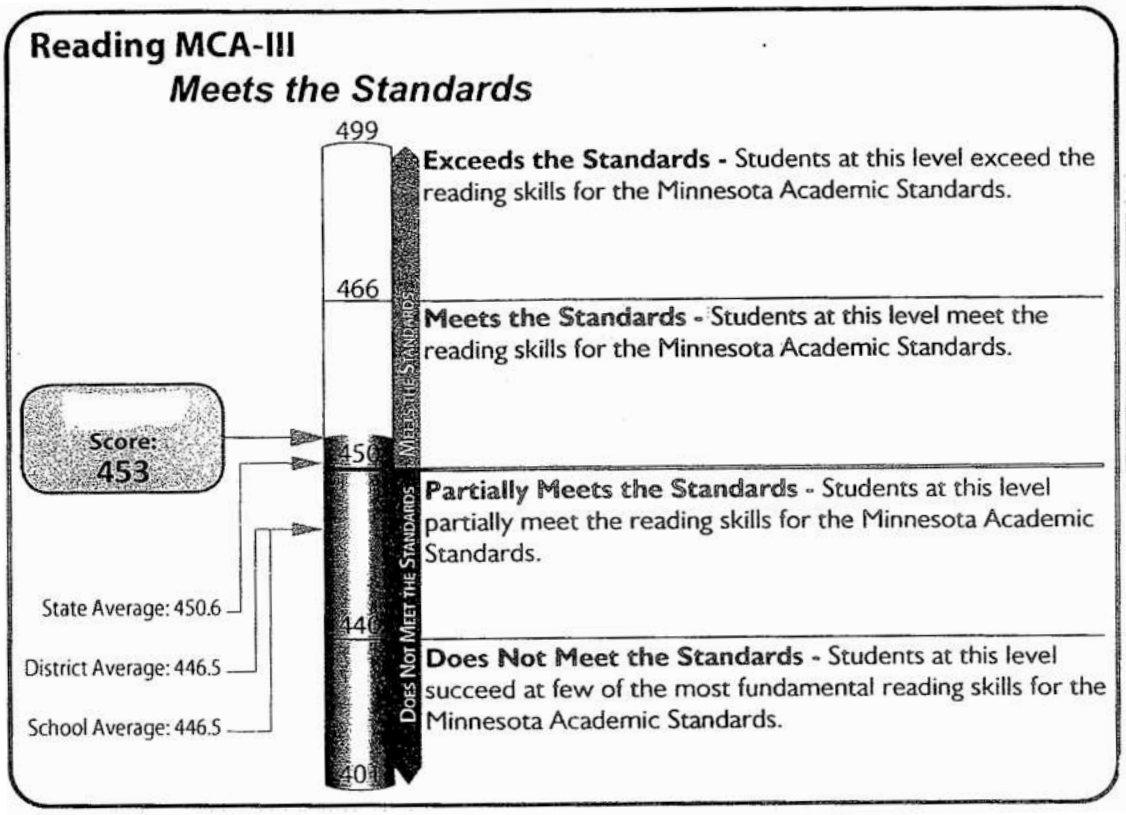
Appendix F
Minnesota Comprehensive Assessment (MCA) Scores

Grade	Scale Score	Proficient Level
3	301 – 339	Does Not Meet Standards
3	340 – 349	Partially Meets Standards
3	350 – 373	Meets Standards
3	374 – 399	Exceeds Standards
4	411 – 439	Does Not Meets Standards
4	440 – 449	Partially Meets Standards
4	450 – 465	Meets Standards
4	466 – 490	Exceeds Standards
5	517 – 539	Does Not Meet Standards
5	540 – 549	Partially Meets Standards
5	550 – 566	Meets Standards
5	567 – 591	Exceeds Standards

REFERENCE:

Minnesota Department of Education. (2012, September 8). *MCA-III Achievement Level Scale Score Cuts* [Click on heading, "MCA-III Achievement Level Scale Score Cuts"]. Retrieved from http://education.state.mn.us/MDE/SchSup/TestAdmin/MNTests/TechRep/index.html

Appendix G
Minnesota Comprehensive Assessment Example (Grade 4)



Appendix H
Fountas and Pinnell's Benchmark Continuum

Fountas and Pinnell Benchmark Assessment
Instructional Level Expectations for Reading
End of Year

	Exceeding Expectations	**Meeting Expectations**	**Approaching Expectations**	**Does Not Meet Expectations**
Third Grade	Q and Above	P	O	Below O
Fourth Grade	T and Above	S	R	Below R
Fifth Grade	W and Above	V	U	Below U

REFERENCE:

Fountas & Pinnell. (2015). *Text Level Ladder of Progress*. Retrieved from http://www.heinemann.com/fountasandpinnell/handouts/TextLevelLadderOfProgress.pdf

Appendix I
Fountas and Pinnell's Reading Benchmark Assessment

Assessment at-a-Glance

Preparation

Materials

- Benchmark Books
- Recording Forms
- Student Writing Materials
- F and P Calculator
- Assessment Summary Form

Administration

1. **Record** student information on the Recording Form.
2. Enter number of words (**RW**) in the text on the calculator.
3. Read the **title** and the **introduction** to the student.
4. Start the **timer** on the calculator.
5. Have the student start **reading orally.**
6. **Code** the reading behavior on the form.
7. Stop the **timer** on the calculator and record the time on the form.
8. Enter number of **errors** and **self-corrections** on the calculator.
9. Make brief notes about **fluency** and/or circle a fluency rating.
10. Have a **conversation** with the student about the text. Check off items the student talks about. Use prompts as needed to probe for understanding. Score each area and decide on the additional point immediately after the conversation.
11. Read the **writing prompt** to the student (if needed). Have the student begin writing (about 20 minutes maximum).
12. Press buttons (**Accur. %, SC, WPM**) to obtain and record scores.

© 2008 by Irene C. Fountas and Gay Su Pinnell. Portsmouth, NH: Heinemann. This page may be photocopied.

Benchmark Independent Level*	_____
Benchmark Instructional Level**	_____
Recommended Placement Level	_____

Student _____ Grade _____ Date _____

Teacher _____ School _____

Assessment Summary Form

List the titles read by the student from lowest to highest level.

Title	System 1 or 2	Fiction/ Nonfiction	Level	Accuracy	Comprehension	Independent * *(check one)*	Instructional ** *(check one)*	Self-Correction	Fluency *Levels C–Z*	Rate *Levels J–Z (optional)*	Writing About Reading *(optional)*

***Independent Level:**

Levels A–K: Highest level read with 95–100% accuracy and excellent or satisfactory comprehension.

Levels L–Z: Highest level read with 98–100% accuracy and excellent or satisfactory comprehension.

****Instructional Level**

Levels A–K: Highest level read with 90–94% accuracy and excellent or satisfactory comprehension or 95–100% accuracy and limited comprehension.

Levels L–Z: Highest level read with 95–97% accuracy and excellent or satisfactory comprehension or 98–100% accuracy and limited comprehension.

Comprehension

Levels A–K		Levels L–Z	
6–7	Excellent	**9–10**	Excellent
5	Satisfactory	**7–8**	Satisfactory
4	Limited	**5–6**	Limited
0–3	Unsatisfactory	**0–4**	Unsatisfactory

Additional Comments:	Instructional Implications:

© 2008 by Irene C. Fountas and Gay Su Pinnell. Portsmouth, NH: Heinemann. This page may be photocopied.

Student _____ Grade _____ Date _____

Teacher _____ School _____

Part One: Oral Reading

Place the book in front of the student. Read the title and introduction.

Introduction: Marta and her curious dog Sniffles are exploring a canyon in a New Mexico desert. Read to find out what Sniffles and Marta discover.

Sources of Information Used

Page	**Start Time ____ min. ____ sec.** *Canyon Mystery* Level U, RW: 250	E	SC	E			SC		
				M	S	V	M	S	V
1	[Chapter 1: One Morning in the Desert] It is early morning in southwest New Mexico. As the sun rises in a cloudless sky above Red Rock Valley, it casts a muted glow on the hills below. A girl and her dog are out hiking in the rough foothills that ring their desert home. Sniffles darts in and out of sight along the twisting trail. His watchful owner, Marta, follows a few steps behind. Marta's father, with an urgent look, has said she must be home early today, no matter what. More than that he could not be convinced to say, and Marta cannot shake the insistent worry in the back of her mind. As he always does, the curious pup follows his nose to every crack in every rock. Marta pokes at a large flat stone with a stick. Quick as a blink, a snake shoots out and slithers across her sturdy boot. She recalls her								
	Subtotal								

© 2008 by Irene C. Fountas and Gay Su Pinnell. Portsmouth, NH: Heinemann. This page may be photocopied.

Part One: Oral Reading *continued*

Sources of Information Used

Page	Text	E	SC	E			SC		
				M	S	V	M	S	V
1 *cont.*	father's gentle warning: "Always keep your eyes open, Marta. In the desert, danger can be closer than you think."								
2	Soon, Marta reaches her favorite lookout at the summit of a high mesa. She spots a majestic golden eagle that is circling overhead, high above the valley. The sun on her face is a constant reminder that the desert will be sweltering soon. She checks her watch, then tells Sniffles, "It's time to head home, boy." As they make their careful way back downhill, the eagle lets out a screech in the silent blue sky. Warily, Marta stops and searches the desert below.								
	Subtotal								
	End Time ____ min. ____ sec. **Total**								

Have the student finish reading the book silently.

© 2008 by Irene C. Fountas and Gay Su Pinnell. Portsmouth, NH: Heinemann. This page may be photocopied.

Accuracy Rate	%	Below 95%	95%	96%	97%	98%	99%	100%
	Errors	14	12–13	9–11	7–8	4–6	1–3	0

Self-Corrections	_____

Fluency Score	0 1 2 3

Fluency Scoring Key

0 Reads primarily word-by-word with occasional but infrequent or inappropriate phrasing; no smooth or expressive interpretation, irregular pausing, and no attention to author's meaning or punctuation; no stress or inappropriate stress, and slow rate.

1 Reads primarily in two-word phrases with some three- and four-word groups and some word-by-word reading; almost no smooth, expressive interpretation or pausing guided by author's meaning and punctuation; almost no stress or inappropriate stress, with slow rate most of the time.

2 Reads primarily in three- or four-word phrase groups; some smooth, expressive interpretation and pausing guided by author's meaning and punctuation; mostly appropriate stress and rate with some slowdowns.

3 Reads primarily in larger, meaningful phrases or word groups; mostly smooth, expressive interpretation and pausing guided by author's meaning and punctuation; appropriate stress and rate with only a few slowdowns.

Reading Rate *(Optional)*	End Time ____ min. ____ sec. Start Time ____ min. ____ sec. Total Time ____ min. ____ sec. Total Seconds ____ (RW × 60) ÷ Total Seconds = Words Per Minute (WPM) 15,000 ÷ _____ = _____ WPM

© 2008 by Irene C. Fountas and Gay Su Pinnell. Portsmouth, NH: Heinemann. This page may be photocopied.

Part Two: Comprehension Conversation

Have a conversation with the student, noting the key understandings the student expresses. Use prompts as needed to stimulate discussion of understandings the student does not express. Score for evidence of all understandings expressed—with or without a prompt. Circle the number in the score column that reflects the level of understanding demonstrated.

Teacher: Talk about what happened in this story.

Comprehension Scoring Key

- **0** Reflects **no** understanding of the text. Either does not respond or talks off the topic.
- **1** Reflects **very limited** understanding of the text. Mentions a few facts or ideas but does not express the important information or ideas.
- **2** Reflects **partial** understanding of the text. Includes important information and ideas but neglects other key understandings.
- **3** Reflects **excellent** understanding of the text. Includes almost all important information and main ideas.

Key Understandings	Prompts	Score
Within the Text Tells 3–4 events from the story in sequence, such as: Marta was walking in the canyon with her dog; it was getting hot; she went to her favorite spot and then started home; Sniffles ran away; they found a cave; they almost fell; they went home fast. *Note any additional understandings:*	What happened in the first chapter of this book? What else happened?	0 1 2 3
Beyond the Text Marta and Sniffles were not only scared by the bats but also because they nearly fell over the ledge. Marta was worried all through the morning because of what her father said. You could tell the cave was going to be important later in the book. *Note any additional understandings:*	Why did Marta and Sniffles run straight home? How was Marta feeling that day and why? Make a prediction about what will happen at the cave. How do you know something is going to happen there?	0 1 2 3

Continued on next page.

© 2008 by Irene C. Fountas and Gay Su Pinnell. Portsmouth, NH: Heinemann. This page may be photocopied.

Part Two: Comprehension Conversation *continued*

Key Understandings	Prompts	Score
About the Text		
The writer used words that made you feel the peace and beauty of the canyon. (Gives an example such as "twisting trail," "golden eagle circling," "towering mountains.")	This writer used specific words or phrases to describe the canyon. Can you give some examples? What did those words make you feel about the canyon?	0 1 2 3
The writer created a suspenseful feeling by having Marta's father tell her to be home early.	How did the writer let you know that something exciting was going to happen (or use foreshadowing)? Find an example in the story.	
The writer made you think something bad was going to happen and the cave would be important later in the book (foreshadowing).	What did the writer do to make you predict what would happen in the next chapters of the book?	
Note any additional understandings:		

Guide to Total Score
- **9–10 Excellent** Comprehension
- **7–8 Satisfactory** Comprehension
- **5–6 Limited** Comprehension
- **0–4 Unsatisfactory** Comprehension

Subtotal Score: _____/9__

Add 1 for any additional understandings: _____/1__

Total Score: _____/10__

Part Three: Writing About Reading *(optional)*

Read the writing/drawing prompt on the next page to the student. Specify the amount of time for the student to complete the task. (See *Assessment Guide* for more information.)

Writing About Reading
- **0** Reflects **no** understanding of the text.
- **1** Reflects **very limited** understanding of the text.
- **2** Reflects **partial** understanding of the text.
- **3** Reflects **excellent** understanding of the text.

© 2008 by Irene C. Fountas and Gay Su Pinnell. Portsmouth, NH: Heinemann. This page may be photocopied.

Student _____ Date _____

Write a one-paragraph summary of the first chapter in Canyon Mystery. Then write one paragraph telling the kinds of things you think might happen next. You can draw a sketch to go with your writing.

© 2008 by Irene C. Fountas and Gay Su Pinnell. Portsmouth, NH: Heinemann. This page may be photocopied.

REFERENCE:
Fountas, I. C., & Pinnell, G. S. (2008). *Benchmark Assessment System 2*. Portsmouth, NH: Heinemann.

Appendix J
Letter of Introduction to Parents and Guardians

March 17, 2014

Dear Parent or Guardian,

I am writing to inform you of an upcoming research study I will be conducting at your child's school. I am a fifth grade teacher and am currently enrolled in the doctoral program at the University of North Dakota in the Teacher Education Program. To complete the program requirements, it is necessary for me to complete and submit a research project. My project involves understanding a student's motivation to read. This project has been approved by the Institutional Review Board on campus. In addition, the principal and teachers have agreed to participate with this project.

In order to examine elementary student's level of motivation for reading, along with factors affecting reading motivation, each student will be given a short survey. Your child's teacher will administer the reading survey during their normal reading hour. The survey takes very little time and will provide important information regarding the reading motivation of intermediate students. Survey participation is optional and will not affect your child's grade. Your child's identity will not be revealed at any time during the research or in the final manuscript.

If you have any questions please feel free to contact me. Thank you!

Erin Peterson

Appendix K
Letter of Introduction to Students

March 17, 2014

Dear Students,

As most of you already know, I am a fifth grade teacher at this school. However, I am also a student in college working on a special research project. A research study is a way to learn more about something. I would like to learn more about what motivates students to read. This requires me to ask students questions about how they feel about reading. I want to know things such as if you like to read, what kinds of things you like to read, and what gets you most excited about reading.

You are being asked to join my study because you are a student who takes part in reading at school. If you agree to join this study, you will be asked to take a short reading survey. Your classroom teacher will be reading this survey out loud to you. You can ask questions at any time. You will have as much time as you need to complete this survey, and it will not be graded. No one will know your answers except me. The best part is there are no wrong answers. I will write a paper about the project using your answers, but I will not use your name.

It will be important for me to find out how you feel about reading. I hope that you are interested in helping with this project because I can't do it without you! Your opinion is very important to me, and I am looking forward to hearing what you have to say.

Thank you for your help!

Mrs. Peterson

Appendix L
Institutional Review Board (IRB) Approval

UND UNIVERSITY OF NORTH DAKOTA

UND.edu

DIVISION OF RESEARCH & ECONOMIC DEVELOPMENT

Institutional Review Board
c/o Research Development and Compliance
Twamley Hall, Room 106
264 Centennial Drive Stop 7134
Grand Forks, ND 58202-7134
Phone: 701.777.4279
Fax: 701.777.6708

January 6, 2015

Principal Investigators:	Erin Peterson
Project Title:	"Investigating the Relationship Between Elementary Students' Motivation to Read and Academic Achievement in Reading"
IRB Project Number:	IRB-201501-202
Project Review Level:	Exempt 4
Date of IRB Approval:	01/05/2015
Expiration Date of This Approval:	01/04/2018

The application form and all included documentation for the above-referenced project have been reviewed and approved via the procedures of the University of North Dakota Institutional Review Board.

If you need to make changes to your research, you must submit a Protocol Change Request Form to the IRB for approval. No changes to approved research may take place without prior IRB approval.

This project has been approved for 3 years, as permitted by UND IRB policies for exempt research. You have approval for this project through the above-listed expiration date. When this research is completed, please submit a Termination Form to the IRB.

The forms to assist you in filing your project termination, adverse event/unanticipated problem, protocol change, etc. may be accessed on the IRB website: http://und.edu/research/resources/human-subjects/

Sincerely,

Michelle L. Bowles, M.P.A., CIP
IRB Coordinator

MLB/jle

Enclosures

Cc: Dr. Shelby Barrentine

The University of North Dakota is an equal opportunity / affirmative action institution.

Appendix M
Codes Used to Input Data in SPSS Software

Teacher Rating Scale

Code	Item from TRS
tchrmot	Rate each child's current reading motivation relative to their classmates. (1) Far under the class average (2) Slightly under the class average (3) At the class average (4) Slightly above the class average (5) Far above the class average
tchrach	Rate each child's current academic achievement in reading relative to their classmates. (1) Far under the class average (2) Slightly under the class average (3) At the class average (4) Slightly above the class average (5) Far above the class average

Motivation to Read Profile

Instructions to Participants

"Please listen as your teacher reads each question to you. After hearing all the choices, choose which one best describes you as a reader. This will not be graded and it will simply be used to understand and improve reading lessons."

Demographic Variables

Code	Item from MRP
grade	1. I am in… a. third grade [1*] b. fourth grade [2] c. fifth grade [3]
gender	2. I am a… a. girl [1] b. boy [2]

* indicates the first response (a. third grade) was assigned a value of 1, the second response (b. fourth grade) was assigned a value of 2, and so on.

Motivation Subscale – Self Concept as a Reader

Please listen as your teacher reads each question to you. After hearing all the choices, choose which one best describes you as a reader.

Code	Item from MRP
selfc1 (reverse coded)	3. My friends think I am… a. a very good reader [1] b. a good reader [2] c. an ok reader [3] d. a poor reader [4]
selfc2	5. I read… a. not as well as my friends [1] b. about the same as my friends [2] c. a little better than my friends [3] d. a lot better than my friends [4]
selfc3 (reverse coded)	7. When I come to a word I don't know, I can… a. almost always figure it out [1] b. sometimes figure it out [2] c. almost never figure it out [3] d. never figure it out [4]
selfc4 (reverse coded)	9. When I am reading by myself, I understand… a. almost everything I read [1] b. some of what I read [2] c. almost none of what I read [3] d. none of what I read [4]
selfc5	11. I am… a. a poor reader [1] b. an ok reader [2] c. a good reader [3] d. a very good reader [4]
selfc6	13. I worry about what other kids think about my reading… a. every day [1] b. almost every day [2] c. once in a while [3] d. never [4]
selfc7	15. When my teacher asks me a question about what I have read, I… a. can never think of an answer [1] b. have trouble thinking of an answer [2] c. sometimes think of an answer [3] d. always think of an answer [4]

Motivation Subscale – Self-Concept as a Reader (Continued)

Code	Item from MRP
selfc8 (reverse coded)	17. Reading is… a. very easy for me [1] b. kind of easy for me [2] c. kind of hard for me [3] d. very hard for me [4]
selfc9	19. When I am in a group talking about stories, I… a. almost never talk about my ideas [1] b. sometimes talk about my ideas [2] c. almost always talk about my ideas [3] d. always talk about my ideas [4]
selfc10	21. When I read out loud I am a… a. poor reader [1] b. ok reader [2] c. good reader [3] d. very good reader [4]
Selfc_sc	Ten self-concept questions grouped together as one variable

Motivation Subscale – Value of Reading

Please listen as your teacher reads each question to you. After hearing all the choices, choose which one best describes you as a reader.

Code	Item from MRP
value1	4. Reading a book is something I like to do… a. never [1] b. not very often [2] c. sometimes [3] d. often [4]
value2 (reverse coded)	6. My best friends think reading is… a. really fun [1] b. fun [2] c. ok to do [3] d. not fun at all [4]
value3	8. I tell my friends about good books I read. a. I never do this [1] b. I almost never do this [2] c. I do this some of the time [3] d. I do this a lot [4]

Motivation Subscale – Value of Reading (Continued)

Code	Item from MRP
value4 (reverse coded)	10. People who read a lot are… a. very interesting [1] b. interesting [2] c. not very interesting [3] d. boring [4]
value5 (reverse coded)	12. I think libraries are… a. a great place to spend time [1] b. an interesting place to spend time [2] c. an ok place to spend time [3] d. a boring place to spend time [4]
value6	14. Knowing how to read well is… a. not very Important [1] b. sort of important [2] c. important [3] d. very important [4]
value7	16. I think reading is… a. a boring way to spend time [1] b. an ok way to spend time [2] c. an interesting way to spend time [3] d. a great way to spend time [4]
value8	18. When I grow up I will spend… a. none of my time reading [1] b. very little of my time reading [2] c. some of my time reading [3] d. a lot of my time reading [4]
value9 (reverse coded)	20. I would like for my teacher to read books out loud to the class… a. every day [1] b. almost every day [2] c. once in a while [3] d. never [4]
value10 (reverse coded)	22. When someone gives me a book for a present, I feel… a. very happy [1] b. sort of happy [2] c. sort of unhappy [3] d. unhappy [4]
Value_sc	Ten value questions grouped together as one variable

Motivation_sc	Ten self-concept and ten value questions grouped together as an overall motivation variable.

Reading Factors – Questions Added to MRP

Incorporating Reading at Home

Code	Item from MRP
home1	23. * I spend time reading at home. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
home2	24. * I have a variety of reading materials at home. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
home3	25. * Someone at home reads with me. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
home4	26. * I see others at my house reading. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
home5	27. * I discuss what I read at home with others. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
Home_sc	Home factors combined as one variable

Teacher Modeling

Code	Item from MRP
model1	28. * I would like for my teacher to talk about books he/she likes. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
model2	29. * I would like for my teacher to recommend books to read in class. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
model3	30. * Listening to my teacher during reading instruction helps me get excited about reading. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
value9 (reverse coded)	20. I would like for my teacher to read books out loud to the class… a. every day [1] b. almost every day [2] c. once in a while [3] d. never [4]
Model_sc	Teacher modeling factors combined as one variable

Student Choice

Code	Item from MRP
choice1	31. * Choosing what I read is important to me. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
choice2	32. * I enjoy going to the library to choose books. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
choice3	33. * Having a variety of books in the classroom to choose from is important. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
choice4 (reverse coded)	34. * I am interested in books I am required to read. a. very often [4] b. often [3] c. sometimes [2] d. never [1]
Choice_sc	Choice factors combined as one variable

Social Interaction

Code	Item from MRP
selfc1 (reverse coded)	3. My friends think I am… a. a very good reader [1] b. a good reader [2] c. an ok reader [3] d. a poor reader [4]
selfc2	5. I read… a. not as well as my friends [1] b. about the same as my friends [2] c. a little better than my friends [3] d. a lot better than my friends [4]
value2 (reverse coded)	6. My best friends think reading is… a. really fun [1] b. fun [2] c. ok to do [3] d. not fun at all [4]
value3	8. I tell my friends about good books I read. a. I never do this [1] b. I almost never do this [2] c. I do this some of the time [3] d. I do this a lot [4]
selfc6	13. I worry about what other kids think about my reading… a. every day [1] b. almost every day [2] c. once in a while [3] d. never [4]
selfc9	19. When I am in a group talking about stories, I… a. almost never talk about my ideas [1] b. sometimes talk about my ideas [2] c. almost always talk about my ideas [3] d. always talk about my ideas [4]
Social_sc	Social interaction factors combined as one variable

Reading Benchmark Assessment Scores

Benchmarkscores_sc	**Third, Fourth and Fifth grade reading benchmark ranges combined as one variable (1-4)**
Benchmark_3	Third grade reading benchmark scores (1-26)
Third_benchmark_ranges	Third grade reading benchmark ranges (1-4)
Benchmark_4	Fourth grade reading benchmark scores (1-26)
Fourth_benchmark_ranges	Fourth grade reading benchmark ranges (1-4)
Benchmark_5	Fifth grade reading benchmark scores (1-26)
Fifth_benchmark_ranges	Fifth grade reading benchmark ranges (1-4)

Third Grade
1 – 14 = 1
15 = 2
16 = 3
17 – 26 = 4

Fourth Grade
1 – 17 = 1
18 = 2
19 = 3
20 – 26 = 4

Fifth Grade
1 – 20 = 1
21 = 2
22 = 3
23 – 26 = 4

MCA Reading Assessment Scores

Mcascores_sc	**Third, Fourth and Fifth grade MCA ranges combined as one variable (1-4)**
Mca_score3	Third grade mca scores (301-399)
Third_mca_ranges	Third grade mca ranges (1-4)
Mca_score4	Fourth grade mca scores (411-490)
Fourth_mca_ranges	Fourth grade mca ranges (1-4)
Mca_score5	Fifth grade mca scores (517-591)
Fifth_mca_ranges	Fifth grade mca ranges (1-4)

Third Grade
301 – 339 = 1
340 – 349 = 2
350 – 373 = 3
374 – 399 = 4

Fourth Grade
411 – 439 = 1
440 – 449 = 2
450 – 465 = 3
466 – 490 = 4

Fifth Grade
517 – 539 = 1
540 – 549 = 2
550 – 566 = 3
567 – 591 = 4

REFERENCES

Allington, R. L., & Gabriel, R. E. (2012, March). Every child, every day. *Educational Leadership*, *69*(6), 10-15.

American Institutes for Research. (n.d.). *Gates-MacGinitie Reading Tests (GMRT)*. Washington, DC: American Institutes for Research, Center on Response to Intervention. Retrieved from http://www.rti4success.org/gates-macginitie-reading-tests-gmrt-reading

Applegate, A. J., & Applegate, M. D. (2010, December). A study of thoughtful literacy and the motivation to read. *The Reading Teacher*, *64(*4*),* 226-234.

Archambault, I., Eccles, J. S., & Vida, M. N. (2010, November). Ability self-concepts and subjective value in literacy: Joint trajectories from grades 1 through 12. *Journal of Educational Psychology*, *102*(4), 804-816.

Atkinson, J. W. (1957, November). Motivational determinants of risk taking behavior. *Psychological Review, 64(*6), 359-372.

Baker, L. & Wigfield, A. (1999). Dimensions of children's motivation for reading and their relations to reading activity and reading achievement. *Reading Research Quarterly, 34*(4), 452-477.

Barton, P. (2000, January). What jobs require: Literacy, education, and training, 1940-2006. Princeton, NJ: Educational Testing Service, Policy Information Center.

Becker, M., McElvany, N., Kortenbruck, M. (2010, November). Intrinsic and extrinsic reading motivation as predictors of reading literacy: A longitudinal study. *Journal of Educational Psychology, 102*(4), 773-785.

Bembenutty, H. (2012, May). An interview with Allan Wigfield: A giant on research on expectancy value, motivation, and reading achievement. *Journal of Advanced Academics*, *23*(2), 185-193.

Biancarosa, G., and Snow, C. E. (2004.) *Reading next—A vision for action and research in middle and high school literacy: A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education.

Brozo, W. G., & Flynt, E. S. (2008). Motivating students to read in the content classroom: Six evidence-based principles. *The Reading Teacher*, *62*(2), 172-174.

Chall, J. S. (1983). *Stages of reading development*. New York, NY: McGraw-Hill.

Chapman, J. W., Tunmer, W. E., Prochnow, J. E. (2000, December). Early reading-related skills and performance, reading self-concept, and the development of academic self-concept: A longitudinal study. *Journal of Educational Psychology*, *92*(4), 703-708.

Child Trends Data Bank. (2014, September). *Reading Proficiency: Indicators on Children and Youth*. Retrieved September 23, 2014, from http://www.childtrends.org/wp-content/uploads/2013/01/29_Reading_Proficiency.pdf

Clay, M. (1993). *Reading Recovery: A guidebook for teachers in training*. Portsmouth, NH: Heinemann.

Connell, D., & Gunzelmann, B. (2004). The new gender gap: Why are so many boys floundering while so many girls are soaring? *Scholastic Instructor*, *113*(6), 14-17.

Cooper, J. D., Robinson, M. D., Slansky, J. A., & Kiger, N. D. (2015). *Literacy: Helping students construct meaning* (9th ed.). Stamford, CT: Cengage Learning.

Corcoran, C. A., & Mamalakis, A. (2009, Fall). Fifth grade students' perceptions of reading motivation techniques. *Reading Improvement*, *46*(3), 137-142.

Cunningham, A. E., & Stanovich, K. E. (1997). Early reading acquisition and its relationship to reading experience and ability 10 years later. *Developmental Psychology*, *33*(6), 934-945.

De Naeghel, J., Van Keer, H., Vansteenkiste, M., & Rosseel, Y. (2012, November). The relation between elementary students' recreational and academic reading motivation, reading frequency, engagement, and comprehension: A self-determination theory perspective. *Journal of Educational Psychology*, *104*(4), 1006-1021.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.

Deci, E. L., & Ryan, R. M. (2002). *Handbook of self-determination research*. Rochester, NY: University of Rochester Press.

Eccles, J. (1983). Expectancies, values, and academic behaviors. In J. T. Spence (Ed.), *Achievement and achievement motives: Psychological and sociological approaches* (pp.75-146). San Francisco: W. H. Freeman and Company.

Eccles, J., Wigfield, A., Harold, R., & Blumenfeld. (1993, June). Age and gender differences in children's self- and task perceptions during elementary school. *Child Development, 64*(3), 830-846.

Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology*, *53*, 109-132.

Edmunds, K. M., & Bauserman, K. L. (2006, February). What teachers can learn about reading motivation through conversations with children. *The Reading Teacher*, *59*(5), 414-424.

Education Alliance. (2007). *Gender differences in reading achievement: Policy implications and best practices*. Charleston, WV: Author.

Field, A. (2013) *Discovering statistics using IBM SPSS statistics* (4th ed.). Thousand Oaks, CA: Sage Publications, Inc.

Fountas, I. C., & Pinnell, G. S. (2006). *Teaching for comprehending and fluency: Thinking, talking, and writing about reading, K-8*. Portsmouth, NH: Heinemann.

Fountas, I. C., & Pinnell, G. S. (2008). *Benchmark Assessment System 2*. Portsmouth, NH: Heinemann.

Fountas and Pinnell Benchmark Assessment. (2009, June). Instructional level expectations for reading. Retrieved from http://www.heinemann.com/fountasandpinnell/handouts/FP-InstructLevelExpectationsJUNE2009.pdf

Fountas & Pinnell. (2015). *Text Level Ladder of Progress*. Retrieved from http://www.heinemann.com/fountasandpinnell/handouts/TextLevelLadderOfProgress.pdf

Freeman, C. E. (2004, November). *Trends in educational equity of girls & women: 2004*. Washington DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

Gambrell, L. B. (1996, September). Creating classroom cultures that foster reading motivation. *The Reading Teacher*, *50*(1), 14-25.

Gambrell, L. B. (2011, November). Seven rules of engagement: What's most important to know about motivation to read. *The Reading Teacher*, *65*(3), 172-178.

Gambrell, L. B., Martin Palmer, B., Codling, R. M., & Anders Mazzoni, S. (1996, April). Assessing motivation to read. *The Reading Teacher*, *49*(7), 518-533.

Gottfried, A. E. (1990, September). Academic intrinsic motivation in young elementary school children. *Journal of Educational Psychology*, *82*(3), 525-538.

Gottfried, A. E., Fleming, J. S., & Gottfried, A. W. (2001, March). Continuity of academic intrinsic motivation from childhood through late adolescence: A longitudinal study. *Journal of Educational Psychology*, *93*(1), 3-13.

Guay, F., Chanal, J., Ratelle, C. F., Marsh, H. W., Larose, S., & Boivin, M. (2010, December). Intrinsic, identified, and controlled types of motivation for school subjects in young elementary school children. *British Journal of Educational Psychology*, *80*, 711-735.

Guthrie, J. T., Schafer, W. D., & Huang, C.-W. (2001, January/February). Benefits of opportunity to read and balanced instruction on the NAEP. *The Journal of Educational Research*, *94*(3), 145-162.

Guthrie, J. T., & Wigfield, A. (2000). Engagement and motivation in reading, In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research: Volume III* (pp. 403-422). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Guthrie, J. T., Wigfield, A., Humenick, N. M., Perencevich, K. C., Taboada, A., & Barbosa, P. (2006, March/April). Influences of stimulating tasks on reading motivation and comprehension. *Journal of Educational Research*, *99*(4), 232-245.

Guthrie, J. T., Laurel, A., Hoa, W., Wigfield, A., Tonks, S. M., Humenick, N. M., Littles, E. (2007, July). Reading motivation and reading comprehension growth in the later elementary years. *Contemporary Educational Psychology*, *32*(3), 282-313.

Huba, M. E., & Freed, J. E. (2000*). Learner-centered assessment on college campuses: Shifting the focus from teaching to learning.* Needham Heights, MA: Allyn & Bacon.

Jacobs, J. E., Lanza, S., Osgood, D. W., Eccles, J. S., & Wigfield, A. (2002, March/ April). Changes in children's self-competence and values: Gender and domain differences across grades one through twelve. *Child Development*, *73*(2), 509-527.

Kelley, M. J., & Decker, E. O. (2009). The current state of motivation to read among middle school students. *Reading Psychology, 30*(5), 466-485.

Kush, J. C., & Watkins, M. W. (1996, May/June). Long-term stability of children's attitudes toward reading. *Journal of Educational Research*, *89*(5), 315-319.

Lepper, M. R., Corpus, J. H., & Iyengar, S. S. (2005). Intrinsic and extrinsic motivational orientations in the classroom: Age differences and academic correlates. *Journal of Educational Psychology*, *97*(2), 184-196.

Logan, S., Medford, E., & Hughes, N. (2011, February). The importance of intrinsic motivation for high and low ability readers' reading comprehension performance. *Learning and Individual Differences*, *21*(1), 124-128.

Marinak, B. A., & Gambrell, L. B. (2008). Intrinsic motivation and rewards: What sustains young children's engagement with text? *Literacy Research and Instruction*, *47*(1), 9-26.

Marinak, B. A., & Gambrell, L. B. (2010). Reading motivation: Exploring the elementary gender gap. *Literacy Research and Instruction*, *49*(2), 129-141.

Mata, L. (2011). Motivation for reading and writing in kindergarten children. *Reading Psychology*, *32*(3), 272-299.

McKenna, M. C., & Kear, D. J. (1990, May). Measuring attitude toward reading: A new tool for teachers. *The Reading Teacher*, *43*(8), 626-639.

McKenna, M. C., Kear, D. J., & Ellsworth, R. A. (1995). Children's attitudes toward reading: A national survey. *Reading Research Quarterly*, *30*(4), 934-956.

McKool, S. S. (2007). Factors that influence the decision to read: An investigation of fifth grade students' out-of-school reading habits. *The Reading Improvement*, *44*(3), 111-131.

Meece, J. L., Glienke, B. B., & Burg, S. (2006, October). Gender and motivation. *Journal of School Psychology*, *44*, 351–373.

Minnesota Department of Education. (2010). *Minnesota academic standards: English language arts K-12*. Retrieved June 11, 2015, from http://education.state.mn.us/MDE/EdExc/StanCurri/K-12AcademicStandards/Reading/index.htm [On web page titled *Reading*, click "Minnesota K-12 Academic Standards in English Language Arts (2010) – 12/31/14," near bottom of page]

Minnesota Department of Education. (2012, September 8). *MCA-III Achievement Level Scale Score Cuts* [Click on heading, "MCA-III Achievement Level Scale Score Cuts"]. Retrieved from http://education.state.mn.us/MDE/SchSup/TestAdmin/MNTests/TechRep/index.html

Minnesota Department of Education. (2013, June). *Minnesota Comprehensive Assessments – Series III: Reading, achievement level descriptors*. Roseville, MN: Author.

Minnesota Department of Education. (2014a, October 17). *Minnesota Comprehensive Assessments – Series III (MCA-III): Reading test specifications for MCA-III, Grades 3-8 and 10*. Retrieved September 23, 2014, from http://education.state.mn.us/MDE/EdExc/Testing/TestSpec/ [On web page titled *Test Specifications*, under subheading *Reading* click "MCA-III Test Specifications: Reading, Grades 3-8, 10 (2010 standards)"]

Minnesota Department of Education. (2014b, December). *Questions and answers about the MCA in mathematics, reading and science*. Roseville, MN: Author. Retrieved June 3, 2015, from http://education.state.mn.us/MDE/JustParent/TestReq/ [On web page titled *Testing Information*, under subheading *English Language Parent Fact Sheets*, click "Minnesota Comprehensive Assessments (MCA) Parent Fact Sheet – English"]

Minnesota Department of Education. (2014c, December). *Questions and answers about the MTAS in mathematics, reading and science*. Roseville, MN: Author. Retrieved June 3, 2015, from http://education.state.mn.us/MDE/JustParent/TestReq/ [On web page titled *Testing Information*, under subheading *English Language Parent Fact Sheets*, click "Minnesota Test of Academic Skills (MTAS) Parent Fact Sheet – English"]

Minnesota Department of Education. (n.d.). *Minnesota Comprehensive Assessments-Series III: Reading Item Sampler Grade 5*. Roseville, MN: Author. Retrieved from http://www.stma.k12.mn.us/documents/MCA-IIIGrade5ReadingItemSampler.pdf

Moore, D. W., Bean, T. W., Birdyshaw, D., & Rycik, J. A. (1999). Adolescent literacy: A position statement. *Journal of Adolescent & Adult Literacy*, *42*(1), 97-112.

National Center for Education Statistics [NCES]. (2003, June). *The condition of education 2003* (NCES 2003-067). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. Retrieved from http://nces.ed.gov/pubs2003/2003067.pdf

National Center for Education Statistics [NCES]. (2011). *The Nation's Report Card: Reading 2011, National Assessment of Educational Progress at Grades 4 and 8* (NCES 2012-457). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. Retrieved from http://www.nationsreportcard.gov/reading_2011/reading_2011_report/

O'Flahavan, J. F., Gambrell, L. B., Guthrie, J., Stahl, S., Baumann, J. F., & Alvermann, D. E. (1992, August/September). Poll results guide activities of research center. *Reading Today, 10*(1), 12.

Oldfather, P. (1993, May). What students say about motivating experiences in a whole language classroom. *The Reading Teacher*, *46*(8), 672-681.

Park, Y. (2011, August). How motivational constructs interact to predict elementary students' reading performance: Examples from attitudes and self-concept in reading. *Learning and Individual Differences*, *21*(4), 347-358.

Patrick, H., Mantzicopoulos, P., Samarapungavan, A., & French, B. F. (2008, Winter). Patterns of young children's motivation for science and teacher-child relationships. *Journal of Experimental Education*, *76*(2), 121-144.

Phillips, L. M., Norris, S. P., Osmond, W. C., & Maynard, A. M. (2002, March). Relative reading achievement: A longitudinal study of 187 children from first through sixth grades. *Journal of Educational Psychology*, *94*(1), 3-13.

Pinkus, L. (2006, June). *Who's counted? Who's counting? Understanding high school graduation rates*. [Online]. Retrieved November 20, 2014, from http://www.dropoutprevention.org/sites/default/files/Understanding_High_School_Graduation_Rates.pdf

Pitcher, S. M., Albright, L. K., DeLaney, C. J., Walker, N. T., Seunarinesingh, K., Mogge, S., . . . Dunston, P. J. (2007, February). Assessing adolescents' motivation to read. *Journal Of Adolescent & Adult Literacy*, *50*(5), 378-396.

Policastro, M. M., Mazeski, D. K., & McTague, B. (2010, Winter). Parent involvement in reading. *Illinois Reading Council Journal*, *39*(1), 60-64.

Ransford-Kaldon, C. R., Sutton Flynt, E., Ross, C. L., Franceschini, L., Zoblotsky, T., Huang, Y., & Gallagher, B. (2010, September). *Implementation of effective intervention: An empirical study to evaluate the efficacy of Fountas & Pinnell's Leveled Literacy Intervention System (LLI), 2009-2010*. Memphis, TN: The University of Memphis, Center for Research in Educational Policy.

Resnick, L. B., & Hampton, S. (2009). *Reading and writing grade by grade*. Newark, DE: International Reading Association.

Seuss, T. (1978). I can read with my eyes shut! New York: Random House Children's Books.

Smith, J. K., Smith, L. F., Gilmore, A., & Jameson, M. (2012, April). Students' self perception of reading ability, enjoyment of reading and reading achievement. *Learning and Individual Differences, 22*(2), 202-206.

Snow, C. E., & Biancarosa, G. (2003). *Adolescent literacy and the achievement gap: What do we know and where do we go from here?* New York: Carnegie Corporation of New York.

Sweet, A. P., Guthrie, J. T., & Ng, M. M. (1998, June). Teacher perceptions and students reading motivation. *Journal of Educational Psychology, 90*(2), 210-223.

Taylor, R. (1990, January/February). Interpretation of the correlation coefficient: A basic review. *Journal of Diagnostic Medical Sonography*, *6*(1), 35-39.

Torgesen, J. K., Houston, D. D., Rissman, L. M., Decker, S. M., Roberts, G., Vaughn, S., . . . Lesaux, N. (2007). *Academic literacy instruction for adolescents: A guidance document from the Center on Instruction*. Portsmouth, NH: RMC Research Corporation, Center on Instruction.

Trochim, W. M. K. (2006, October 20). *The Research Methods Knowledge Base* (2nd ed.). Retrieved from http://www.socialresearchmethods.net/kb/

Ülper, H. (2011, Spring). The motivational factors for reading in terms of students. *Educational Sciences: Theory & Practice*, *11*(2), 954-960.

Valleley, R. J., & Shriver, M. D. (2003, March). An examination of the effects of repeated readings with secondary students. *Journal of Behavioral Education*, *12*, 55-76.

Wang, J. H., & Guthrie, J. T. (2004, April-June). Modeling the effects of intrinsic motivation, extrinsic motivation, amount of reading, and past reading achievement on text comprehension between U.S. and Chinese students. *Reading Research Quarterly*, *39*(2), 162-186.

Webb, N. L. (1999, August). *Alignment of science and mathematics standards and assessments in four states* (Research Monograph No. 18), Madison, WI: National Institute for Science Education, and Washington, DC: Council of Chief State School Officers. Retrieved from http://files.eric.ed.gov/fulltext/ED440852.pdf

Wigfield, A. (2000). Chapter Seven: Facilitating children's reading motivation. In L. Baker, M. J. Dreher, & J. T. Guthrie (Eds.), *Engaging young readers: Promoting achievement and motivation* (pp. 140-158). New York, NY: The Guilford Press.

Wigfield, A., & McCann, A. D. (1996-1997). Children's motivations for reading. *The Reading Teacher*, *50*, 360-362.

Wigfield, A., & Guthrie, J. T. (1997). Relations of children's motivation for reading to the amount and breadth of their reading. *Journal of Educational Psychology*, *89*(3), 420-432.

Wigfield, A., & Eccles, J. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology*, *25*(1), 68-81.