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The Relationship Between Self-efficacy and Reading Test Score Improvement in Elementary English Learners

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THE RELATIONSHIP BETWEEN SELF-EFFICACY AND READING TEST SCORE IMPROVEMENT IN ELEMENTARY ENGLISH LEARNERS

by

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A capstone submitted in partial fulfillment of the requirements for the degree of Master of Arts in English as a Second Language.

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I would like to thank my wife, my parents, my professors, my administrators, and my peers for guiding me to become the educator I am today. I would like to thank my students and my sons for providing me the motivation to do so.
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CHAPTER ONE: INTRODUCTION

Reading is said to be fundamental to academic success. The US Department of Education (2012) has shown that the federal government thinks reading is very important and should be a focus of instruction. From an economic perspective the importance is illustrated in the allocation of high levels of financial resources to support the development of reading in our schools (US Department of Education, 2011). The federal government in 2011 spent over 14.5 billion dollars on grants alone to support Title I schools in this country. English Learners (ELs) are a named group in the stated goals of Title I legislation (US Department of Education, 2011) meaning that, in many districts, ELs are also served through Title I funding and programming. Of this almost 15 billion dollars, over 158.5 million dollars were spent on Minnesota alone (US Department of Education, 2011). In addition to federal and local funds, in Minnesota state funds are also dedicated to the education of ELs. This monetary support highlights the level of focus in this country, and Minnesota specifically, that is placed on academic classroom instruction, of which reading is often emphasized. Despite this financial investment in reading instruction, many ELs are still struggling.

Though there is a strong financial commitment to reading instruction in our schools, the results are at best unclear for Minnesota ELs. As seen in the 2011 fourth grade National Association of Educational Improvement reading test, colloquially known as the Nation’s Report Card, the average score for all Minnesota fourth grade students
was 227 (NAEP, 2011). This placed the average Minnesota student midway between a basic and a proficient marking. Digging a little deeper, however, revealed a somewhat disheartening statistic. Minnesota students classified as ELs scored an average of 193 on this test. This was 42 points below the 235 average achieved by native English speakers. It was also 2 points below the 195 average for students with disabilities and IEPs. It should be noted that this was only one test and it is important to remember that grade level reading is only one component of measuring language proficiency for ELs. This discrepancy in scores between ELs and other groups deserves to be addressed especially considering the overall focus on reading. It would seem that ELs are not realizing the benefits of this educational reading focus; what are we missing?

Though many factors in the home, school, and community are well known influences on the success of ELs in developing reading, as well as their listening, speaking, and writing in English (WIDA, 2014), my personal experience has led me to believe that self-efficacy has been overlooked. Bandura and And (1996) describe self-efficacy as “an individual's belief that they can successfully achieve at a designated level on an academic task or attain a specific academic goal” (p. 1207). In the context of elementary ELs, studies of self-efficacy suggest that ELs need to believe in their ability to learn in order to be successful learners.

Motivation and Background of Researcher

Motivated by my daily interaction with students who seem to lack academic self-efficacy and inspired by previous research on self-efficacy, this study investigated self-efficacy as one possible reason for the variability in ELs’ rate of acquisition of English. Schools across the country are seeking ways to ensure that ELs are making improvement
towards English proficiency as rapidly as possible due to the steady increase of ELs (Maxwell, 2014). While there are many factors that contribute to the speed in which some students develop comparable English to L1 peers and others struggle for longer periods, this study considered the role self-efficacy plays in the development of reading proficiency.

On a personal level, I began seeing characteristics in my struggling students that I could not always explain. In retrospect, what I had been seeing may have been lack of academic self-efficacy. This lack of academic self-efficacy was especially apparent when my students were confronted with challenging academic tasks. On a daily basis, I saw students give up on challenging tasks before trying. Then I would see the same students often be surprised when they succeeded, as if they were not used to this success. Many of my colleagues observed struggles with the students and identified this as learned helplessness, which can be an indicator of low self-efficacy. I began to wonder if academic self-efficacy could be a factor in some ELs’ ability to catch up to their L1 peers and other ELs’ current inability to catch up.

As an elementary EL teacher in a school with a growing EL population my personal interest in this topic stemmed from my observations of three distinct student types. The first two profiles describe struggling students, but who react differently to the struggle. The third profile describes students making steady gains toward grade level performance. The first and second student profiles consist of ELs who plateau on or below the “bubble”, meaning that these students consistently score ten to fifteen points below grade level benchmarks and had been for two to three years. These students, many of whom had been in US school all of their lives, were not reaching grade level standards,
despite years of EL service. The third student profile consists of students that were successfully reaching grade level in three to four years. The three distinct profiles of ELs consistently caught my attention.

Two fifth grade students, who I would describe as plateauing, occasionally stubborn, but also extremely bright in many situations, exemplify the first profile. These two often wouldn’t try and would respond with “I don’t know” when working independently or on higher stakes items such as projects or tests. They also routinely acted out in class by chatting or feigning distraction rather than attempting work that was somewhat difficult. However, when they weren’t worried about failing, these two would attempt work that was more difficult if given slight support and reassurance. Additionally, these students consistently scored two to three levels below grade level on standardized tests and other more informal measures. However, when in small group or individual settings, these same students would complete work well above the level at which they had tested. This combination of off-task behavior and academic indifference during times where work was the least bit challenging, in spite of proven ability, led me to look for further explanation and eventually to the impact of low academic self-efficacy.

The second group of students displayed similar test scores and abilities to the two fifth graders, but reacted in a very different way. This group of students nearly always tried hard, completed work, and wanted to be doing grade level curriculum. The problem was that these students could not do the grade level work successfully or independently and didn’t seem to realize that what they were attempting was above their current level. They would even complain that it was too easy, work through it really fast, and
subsequently receive low marks. These students did not seem to accurately assess their own abilities despite abundant negative feedback on their work. I could only conclude that they were overconfident and/or did not see that they needed to do work that was more comprehensible as a way to strengthen their skills for more challenging scholarship in the future. This group’s self-efficacy was seemingly too high. Both of these groups of students, those with low self-efficacy and those with high self-efficacy remained below grade level and were struggling to catch up academically with their grade level peers.

Students who had successfully overcome the grade level hurdle made up the third profile. These students who matched the third profile, unlike those matching the first and second profiles, were finding success despite similar challenges. These students developed academic proficiency at a rate faster than their EL peers, reaching grade level in math and reading in three to four years in many cases. Most of these students performed at or above grade level peers and exited, or were near exiting, EL services. In the classroom these students displayed confidence by attempting challenging work independently before seeking assistance, if needed. They also thrived in group-work settings by doing their share of the work and contributing at or above expected levels. A final attribute observed was that these students recognized if there was material that they were unfamiliar with and would subsequently ask questions to further their own learning. These students seemed to be self-aware of their academic ability and have a level of self-efficacy that matched those abilities.

All three sets of students, low self-efficacy students, overly high self-efficacy students, and the students with effective levels of self-efficacy, shared many characteristics. Most of these students came from homes where English is not spoken.
The majority of these students had been at their current school for at least three school years. Additionally, many students also had brothers and sisters who fell into one of the other student profile groups. Those who struggled and displayed low self-efficacy had siblings who were flourishing and vice versa. I began to ask why there was such a discrepancy in academic achievement despite these similarities.

This question led me to look through test histories for a trend, discuss the situation with my colleagues, and read articles to find an explanation for this discrepant achievement. From the test histories I found that many students who I thought lacked confidence were below grade level, but more research needed to be done. My colleagues also identified negative school attitudes and a lack of motivation for work completion in some of our students who I had theorized lacked self-efficacy, but these were still anecdotal observations.

I was drawn back to academic self-efficacy as a factor in the number of students who we were classifying as “m” for middle. These students sat squarely on the grade level bubble. They received hours of differentiated instruction from their mainstream teacher, their EL teacher, and often from a Title I teacher, during school, after school, and many in the summer, in an effort to help them reach their grade level potential. They were frustrated, anxious to move towards middle school. They were nervous about major tests because they had a history of not meeting the grade level target.

Their teachers, though generally understanding, were worried that these students didn’t always show what they knew and often seemed to get scores that were lower than expected. The administrators were trying to figure out how to get this group to improve. Schools throughout Minnesota focus on these students; the fear being that they may
become life-long ELs. But what if all these well-meaning teachers, staff, and parents were focusing so hard on this skill or that strategy, such as initial word blends or the five finger story retell, that they missed the more fundamental idea; a student who doesn’t believe that they can learn, probably won’t. This fundamental axiom led to this study’s guiding question.

Guiding Question

By comparing a student’s standardized reading test performance increase to his or her self-efficacy score for academic reading, as found through a survey, this research was designed to answer this question: What is the strength of the relationship between student academic self-efficacy for reading and reading proficiency increases for upper elementary ELs?

Summary

Reading is an important skill for all students and can be a challenging skill for many ELs. There are ELs in my school who struggle to attain grade level reading while others seem to do so more quickly and easily, despite similar demographic characteristics. This dichotomy led me to wonder why certain students found success and others did not. I then postulated that high academic self-efficacy might be a factor in the academic reading achievement discrepancy between students with similar characteristics and even within the same family. This theory led to the guiding question for this research study.

Chapter Overview

For this study, the relevant literature pertaining to the intersection of self-efficacy, reading proficiency, and standardized reading testing will be discussed in Chapter Two.
Each of these topics will also be looked at in relation to ELs. In Chapter Three the methods used in the study will be described, the procedures for information gathering will be discussed, the modified ClassMAPS Believing-In-Me subsection survey will be explained, and the two tests used for comparison to the survey will be reviewed. Finally the method of data analysis will be described. In Chapter Four the survey findings are tabulated and statistically compared to students’ results on both the NWEA MAP reading test and the WIDA ACCESS reading test. Conclusions and patterns will be discussed in Chapter Five and the results will show the relationship between standardized reading test scores and student academic self-efficacy. Chapter Five will also discuss the need for self-efficacy building experiences for upper elementary ELs.
CHAPTER TWO: LITERATURE REVIEW

As a teacher, I have noticed discrepancies in the acquisition of reading skills for students who seem to have comparable abilities. Though exhibiting similar characteristics, a significant difference I have seen between the students who develop grade level proficiencies and those who do not is in their self-efficacy related to academic tasks. Some students who seem to have somewhat high self-efficacy quickly develop grade level abilities, while others who exhibit even higher levels of self-efficacy do not. Still, other students exhibit lower self-efficacy and either succeed or struggle seemingly without correlation to their self-efficacy. This study sought to answer the question: What is the strength of the relationship between student academic self-efficacy for reading and reading proficiency increases for upper elementary ELs?

Overview

In order to answer this research question, a review of the literature on the following topics is discussed: self-efficacy, EL reading, and the relationship between self-efficacy and test achievement. Research studies in self-efficacy have found wide-ranging impacts on learning. Much of the research has focused on: the contributing factors of self-efficacy, the characteristics exhibited by students with varying levels of self-efficacy, how self-efficacy is measured, the relationship between self-efficacy and academic achievement, and how feedback can affect self-efficacy. Research on reading and ELs has often focused on expected timelines for developing native-like ability in
reading, comparisons between ELs and non-ELs, and strategies that work best for ELs’ reading development. Research investigating the relationship between self-efficacy and test performance has been somewhat unclear. Many researchers have found a positive relationship between high self-efficacy and test performance, while others have found a weaker relationship.

Self-efficacy

Factors that Contribute to Self-efficacy

Research has shown that self-efficacy is generated from four main domains: personal performance, vicarious experience, persuasion, and emotional states. (Joet, Bressoux & Usher, 2011). Personal performance consists of personal experiences with the target behavior where successes would boost self-efficacy and failures may limit self-efficacy. Vicarious experience is when an individual sees others, normally peers, attempt the target action and succeed or fail. The individual then extends those experiences to create judgments reflecting their own abilities. Persuasion, in school, is when teachers or students give positive or negative feedback. This is not necessarily specific to the task, but can also be generic support such as “good work”. Emotional states affect self-efficacy when students have negative or positive attitudes towards a task that are not attributed to one of the other domains, such as problems at home or social issues outside of the classroom.

Of these four domains of self-efficacy defined above, this research will focus on personal performance because teachers can foster growth of self-efficacy through a classroom focus on mastery goals and deep learning strategies (Phan, 2012). Common classroom teaching strategies that fall within the personal performance domain may
include collaborative learning groups, goal setting, self-reflection, learning journals and standardized testing for most students. Completing these personal performances allows students to perceive success for themselves and can lead to more positive self-efficacy in the future if students accurately perceive academic successes. Phan found this when he administered Likert-like surveys to over 300 hundred third and fourth grade students to assess their self-efficacy in math and English. The study then compared the results to information from another survey regarding the sources of information that students receive (Phan, 2012). After analyzing the survey results, Phan determined that personal performance experiences have the strongest influence on self-efficacy for English and math.

In addition to an emphasis on mastery experiences, research has supported the importance of self-perception. Joet, Bressoux and Usher (2011) surveyed 395 French third grade students using a 4-point Likert-type scale to measure self-efficacy. This information was then compared to standardized test scores testing the students’ French proficiency. They found that a student’s perception of his or her own previous experiences was the most powerful predictor of self-efficacy, even more so than current scores or grades. In coming to this result, the research of Phan (2012) and Joet et al. (2011) determined that self-efficacy develops over time through mastery experiences and depends heavily on how those experiences are discussed by the class or teacher and how the experience is internally understood by the student. Though looking at elementary learners, these studies did not focus on ELs in their discussion of self-efficacy, but did highlight the presence of a positive relationship between academic achievement or experiences and developing positive self-efficacy.
The Relationship Between Reading and Self-efficacy

One source of self-efficacy that could affect reading is a student’s physiological or emotional state. Phan (2012) found there to be an association, though moderate, between physiological and emotional states and self-efficacy pertaining to English, as a school subject, for students generally. He posits that this may be because English often includes subjects that may be more interesting to the student, leading to positive psychological and emotional experiences. While true for many students, the EL population may feel more apprehension and anxiety towards English than a non-EL student, due to a history of struggling with language acquisition or to negative prior experiences as Bandura, Pastorelli, Barbaranelli, and Caprara (1999) suggested. Standardized testing can be another source of anxiety, like English class, if students have a negative history of test performance, which may negatively impact self-efficacy or provide positive feedback for ELs, which can boost their self-efficacy.

In addition to a student’s psychological or emotional state, research has shown that ELs often struggle to develop grade level reading due to difficulties associated with learning new vocabulary and syntax (Geva & Farnia, 2012; Koo, Becker & Kim, 2013). Research has also shown that self-efficacy is often affected by previous experience (Phan, 2012; Sani & Zain, 2011) and ELs often struggle with grade level reading, which may limit their positive previous experiences. In addition, Phan (2012) found that personal mastery experiences have the most impact on a student’s self-efficacy towards English, as a subject. These researchers would say that students who perceive positive learning experiences should report positive self-efficacy. Research describing the attributes that these students display in the classroom setting is described next.
Accepted Characteristics of Self-Efficacy in Students

Previous research has shown specific characteristics that often correlate with high self-efficacy in students. Educators often view these characteristics as positive indicators of academic success. Some educators would describe them as strategies and others as behaviors, but in the end many students with high self-efficacy will display some of these attributes. According to McTigue, Washburn, and Liew (2009), teachers informally observed high self-efficacy first graders who would seek help if needed, maintain engagement, persist on task, and monitor their own learning. The researchers attributed many of these behaviors to a belief on the part of the students that learning stemmed from consistent effort. McTigue et al. (2009) surmised that the students had developed these beliefs from experiences of academic success. So students that were engaged and persistent in their effort would have more success, which further boosted their level of persistence and engagement.

This mirrors the ideas of many self-efficacy researchers (Bandura et al., 1999; Joet et al., 2011; Phan, 2012) that positive self-efficacy can stem from positive experiences, but takes it one step further by showing how self-efficacy influences future learning opportunities. McTigue et al. (2009) also found that students with low self-efficacy at the elementary level may display characteristics of disengagement. Some common forms this may take are pencil sharpening, frequent requests to leave the room, and complaints of sickness, which requires a trip to the nurse. This too is in keeping with previous self-efficacy findings, as students who are disengaged will struggle to achieve positive authentic academic experiences and will then most likely display low self-efficacy. An interesting note from this research is that due to high self-monitoring levels,
students with high self-efficacy are often less reliant on teacher feedback, while those students with lower self-efficacy may seek out and perhaps be more affected by feedback.

**Self-efficacy and Academic Achievement**

The relationship between student self-efficacy and academic achievement is a well-established and researched topic (Doll, Spies, LeClair, Kurien, & Foley, 2010). Many researchers have focused on college-age students and found a relationship between self-efficacy and academic achievement. Most studies of this type focused on introductory courses and found a positive relationship between student self-efficacy at the beginning of the course and their academic achievement, or grade, at the end of the class (DeFreitas, 2012; Peters, 2013; Reid, 2013).

Many other researchers have also shown the positive relationship between self-efficacy and academic achievement for elementary age students (Bandura & And, 1996; Bong, Cho, Ahn & Kim, 2012; Pajares & Valiante, 2001). The studies which focused on elementary students primarily traced the positive relationship between high self-efficacy and academic achievement, on the other hand, a lack of self-efficacy in a school setting can be disadvantageous to students emotionally and in school success (Bandura et al., 1999). Bandura et al. (1999) compared academic self-efficacy, as determined through a survey, and overall academic achievement as determined by teacher grades and found low academic self-efficacy to be a contributing factor to low academic achievement and antisocial behaviors. Research into self-efficacy of Italian middle school students by Bandura et al. (1999) also showed that a self-efficacy deficit could be emotionally crippling and even lead to depression. It seems reasonable that a self-efficacy deficit,
which can be emotionally crippling and leading to depression, could certainly affect academic achievement.

While the work of Bandura et al. showed the link between self-efficacy, student behaviors, and academic achievement, Pajares and Valiante (2001) narrowed the focus to show that self-efficacy can affect even a specific academic task. To do this they surveyed students on their writing confidence with a 100-point rating over eight items. This scale gauged student confidence on specific tasks related to fifth grade writing. When these confidence scores were then compared to a written assessment graded on a five-point scale, the results showed that self-efficacy contributed predictively to written essay performance among fifth graders. A single written essay is a very specific task. Researchers have also determined that self-efficacy is important in an entire subject.

In addition to self-efficacy’s effect on general academic achievement, student behavior, and specific academic tasks research has also illustrated the effect self-efficacy can have on an entire subject for a student. Bong (1997) showed that self-efficacy was related to achievement in a whole school subject. In Bong’s study, high school students were shown a variety of problems from one component of the SAT for ten to twenty seconds on an overhead projector. The students were asked to rate their confidence-level for each problem on a 100-point scale. These confidence scores were compared to their achievement scores when actually attempting similar problems to those on the overhead. Pertinent to the current study, Bong’s finding may suggest that positive self-efficacy in reading in general should lead to improvement in reading overall, rather than solely on specific reading tasks, such as locating the main idea, or on broad level academic achievement.
In summation, positive self-efficacy should show a strong correlation with academic reading achievement, even on something as broad as a standardized reading test. This research applied this hypothesis by surveying fourth and fifth grade ELs for their reading self-efficacy. However, much of the research has not focused on EL learners and so many of the conclusions have been extrapolated to this group for the purposes of the current research.

Self-efficacy and ELs

Research into the effects of academic self-efficacy has focused on many groups such as college students, math students, or Joet’s et al.’s (2011) study on fourth and fifth graders learning French. Self-efficacy researchers have also analyzed the effect of self-efficacy on many topics such as; college major choices to depression, and goal setting to math anxiety (Pajares, 1996), but ELs as a group, with reading as a topic, has not been a major area of emphasis. In the research that has been done regarding ELs and self-efficacy, much of the research has focused on adult or college-age language learners (Huang & Chang, 1996). Fewer studies have focused on the relationship between self-efficacy and academic achievement in elementary ELs. The research that has been done is consistent in finding that ELs in general have lower academic self-efficacy than their non-EL peers (LeClair, Doll, Osborn & Jones, 2009). Rivera and Waxman (2011) conducted a study on over 200 Hispanic EL fourth and fifth graders, including both interviews and surveys, which found that students who performed lower in mathematics had lower self-efficacy. The authors described this as a “vicious cycle of underachievement” (Rivera & Waxman, 2011) where low student self-efficacy led to low achievement, which further deteriorated their self-efficacy. Additionally, Sani and Zain
found similar results when working with adolescent Malaysian reading students; this study will be discussed more in a later section. The research on ELs and self-efficacy, though not large, supports other self-efficacy research that finds a positive relationship between self-efficacy and academic achievement, but has not explored reading specifically. LeClair et al. (2009) extend the research by finding that ELs generally are lower than their non-EL peers in academic self-efficacy.

**Reading and ELs**

The requirement by the state of MN to test learners each year highlights the importance of tracking all learners and identifying learners who struggle in reading at an early age. For ELs this means yearly testing and comparison to grade level targets since research, such as that conducted by Geva and Farnia (2012) comparing EL readers and non-EL readers, has shown ELs to remain consistently behind in reading, even after multiple years of English instruction. This variation in reading proficiency between EL learners and non-EL learners has led to research studying the factors, particularly vocabulary and syntax, which contribute to this variation and what educators can do to help accelerate the English reading development of English learners.

**EL Reading Development**

Clearly there is variation in the reading development trajectories of EL and non-ELs, but it is important to note that the development of grade level reading proficiency for ELs may not follow the same timeline as their non-EL peers as Koo et al. (2013) found while studying more than 150,000 third grade students. ELs were generally behind their native-English peers in third grade reading comprehension according to a standardized test. This research illustrated that, as a group, ELs begin their upper
elementary years behind in reading and with negative testing experiences as related to their non-EL peers. Jang, Dunlop, Wagner, Kim, and Gu (2013) took this research in a more specific direction by showing that ELs’ development towards academic reading proficiency, as shown by standardized tests, can take between four and seven years for elementary age students. Jang et al. (2013) also found that many active multilingual students (those that maintain their home language) eventually surpass their monolingual peers in reading comprehension after five years in country. This suggests that, in general, ELs who are multilingual and begin school in the United States in kindergarten will often remain behind in reading comprehension through their primary grades, but should begin to close the gap with monolingual peers by third to sixth grade, according to standardized test statistics. This research did not, however, consider the role of self-efficacy in the reading development of ELs or give specific causes for the gap in reading throughout elementary school.

Causes of Variation in Reading Growth

Previous research found that a struggle with vocabulary and syntax leads to this variation between ELs and non-EL students in reading proficiency. A struggle with vocabulary for ELs (Geva & Farnia, 2011; Koo et al., 2013) is understandable as many ELs have limited or no exposure to English at home as compared to their non-EL peers. In Koo et al.’s (2013) study the authors looked at thousands of third grade ELs, comparing them on a statewide reading test to their peers who were not considered ELs. Their findings were that ELs across ethnicities lag behind native language peers in vocabulary, at least in third grade, making this a broad academic issue for reading development of ELs.
Research has also shown that ELs struggle with grade level syntax. Languages have different rules for word order and learning new rules can often lead to confusion and misunderstanding. Geva and Farnia (2011) found that this struggle persists even after multiple years in an English-speaking environment and often coincides with decreased reading comprehension when compared to non-ELs. With vocabulary and syntax identified as areas of struggle for ELs, other researchers have explored strategies to accelerate EL reading development.

**Strategies to Narrow the Variation in Reading Growth**

Further research on strategies for narrowing reading variation has focused primarily on skills and strategies for teachers to implement in their instruction. Many researchers have focused on instructional strategies for reading skill development in ELs. We focus on these strategies here because research has shown that effective instruction can affect student self-efficacy. As Pajares (1996), Rivera & Waxman (2011), and Kudo & Mori (2015) noted, positive experiences can greatly enhance self-efficacy. What this means for the present research is that effective teaching can increase student engagement and lead to successful educational experiences which would in turn increase student self-efficacy.

In identifying strategies that assist struggling readers a number of researchers have found that explicit teaching of reading skills, in which small steps in reading are modeled, taught, and assessed, can assist ELs in increasing reading proficiency (Cisco & Padron, 2012; Kamps, Abbott, Greenwood, Arreaga-Mayer, Wills, Longstaff, Culpepper & Walton, 2007; Linan-Thompson, Cirino & Vaughn, 2007). Another instructional focus that has been shown to benefit EL readers is a focus on students’ ability to use multiple
reading strategies simultaneously for comprehensive reading comprehension (Cisco & Padron, 2012; Linan-Thompson et al. 2007). Though these strategies are shown to work for a multitude of students, some of whom can we can assume are ELs given the national demographics represented in the studies, they do not account, as with causes for the variation in reading between ELs and non-ELs, for the role of self-efficacy may or may not play in narrowing the variation.

Testing and Self-efficacy

The positive relationship between self-efficacy and academic reading achievement for ELs was upheld in Sani and Zain’s study (2011) of 40 Malaysian sixteen year olds’ reading abilities as the students were learning English as a second language. The reading ability of these students was measured using a portion of a national reading test, which suggests that students’ standardized test achievement and self-efficacy are positively related. A Pearson correlation was run and found a positive correlation of .29 between self-efficacy and reading ability. This is a moderate correlation but means that, generally, students who scored higher on their reading test reported higher self-efficacy and those who scored lower on the reading test reported lower self-efficacy. These were students learning English as an L2 and so the similarities to the current study are moderate.

Mucherah and Yoder (2008) had similar findings with eighth grade students in the United States. By comparing survey results to standardized reading test performance, Mucherah and Yoder (2008) found that reading self-efficacy was a strong predictor of reading test achievement. This was found by running a regression analysis and found self-efficacy to be a predictor of achievement on the standardized test. These findings
were supported by Guthrie, Klauda, and Ho (2013) who found a positive relationship between reading efficacy and text comprehension among eighth and tenth graders. Conversely, Guthrie, Wigfield, Metsala, and Cox (1999) did not find this relationship for third and fifth graders.

As found by Guthrie et al. (1999) not all research observed a positive relationship between self-efficacy and reading achievement for all students. In a study of 122 sixth grade students comparing answers on a 4 point Likert-like scale to a standardized reading and writing test, Corkett, Hatt and Benevides (2011) found that students’ self-efficacy did not significantly correlate with their abilities, as shown through standardized test scores. The researchers suggested that sixth grade students might rely more on teacher feedback than on their own perceptions to develop self-efficacy, leading to inaccurate self-efficacy perceptions compared to abilities. These findings, though not specific to the EL population, suggest to this researcher that self-efficacy and reading ability may not be as closely related for upper elementary ELs as other research would suggest, but further research on this population is needed. The results appear somewhat inconclusive as to any correlation between testing and self-efficacy, suggesting that more research is needed.

Research Gap

Previous research into self-efficacy and reading achievement has often not focused on EL elementary students. The studies that have been done on the relationship between self-efficacy and reading achievement are unclear, as some researchers (Corkett et al., 2011; Guthrie et al., 1999) found a minimal relationship while others (Mucherah & Yoder, 2008) found a strong relationship. This inconsistency points to a need for further
study in the relationship between self-efficacy and reading test achievement, especially in the context of ELs. Previous research on EL reading achievement has not often focused on self-efficacy as a factor in low scores, instead focusing on strategies to be taught. This study will add to the current scholarship in the area-of self-efficacy and standardized reading test achievement for upper elementary ELs.

Research Question

The research question for this study is: What is the strength of the relationship between student academic self-efficacy for reading and reading proficiency increases for upper elementary ELs?

Summary

Self-efficacy can play an important role in education by affecting a student’s overall academic performance, performance in specific subject areas, and achievement on particular tasks. In a school setting, this might mean that students with low self-efficacy may lack confidence in their ability to master new concepts or, for ELs, develop their English proficiency. This highlights the need to consider self-efficacy’s role in school-age ELs and its impact on student learning.

The next chapter will describe the research methodology. It will include a description of the survey and reading tests that will be administered, the participants and setting of the study, as well as the procedures and analysis that will be done to collect and understand the data.
CHAPTER THREE: METHODOLOGY

This chapter describes the methodology used in the current study. This research was designed to answer the question: What is the strength of the relationship between student academic self-efficacy for reading and reading proficiency increases for upper elementary ELs? The relationship between these two variables was studied to determine whether there is a correlation between these two variables. To explain how this relationship was studied, first, the survey as a research tool is discussed along with the rationale for utilizing the survey in this research rather than other data collection methods. Then the specific methods of data collection will be discussed as the methods pertain to this study. This will include a detailed description of the setting and participants, the instruments used for data collection, the procedure followed for identifying subjects and administration of the survey, and the means of analyzing the data. This analysis will be used to examine the relationship between academic reading achievement and self-efficacy in the late elementary classroom and to determine whether there is a statistical correlation between self-identified academic self-efficacy and student reading or language development achievement for fourth and fifth grade long term ELs.

Research Paradigm

Educational researchers have been using a variety of surveys to measure the self-efficacy of subjects since Bandura (1982, 1993) highlighted the need to consider self-efficacy’s role in development. Though other researchers use observations, such as
McTigue et al. (2009) or interviews, such as Rivera and Waxman (2011), the majority of perceived self-efficacy levels are self-reported via a survey due to the ease of implementation and ability to generate large amounts of data. Many of the surveys developed (Bandura & And, 1996; Bong et al. 2012; Joet et al. 2011) stem from pioneering self-efficacy work done by Albert Bandura. These surveys consist of statements such as, “I can motivate myself to do my French homework” that attempt to determine students’ belief in their ability to complete a task or do well in an area of study (Joet et al., 2011). Subjects generally self-report on Likert-like scales, which may differ in the number of questions the subjects answer. As four point (Galla, Wood, Tsukayama, Har, Chiu & Langer, 2014; Joet et al., 2011; Le Clair et al., 2009; Mucherah & Yoder, 2008) and five point (Bandura et al., 1999; Bong et al., 2012; Sani & Zain, 2011) scales were the most prevalent, this research followed the work of Bandura and And (1996) and used a five point scale. At the elementary level, the survey is generally handed out with a proctor available (Doll et al., 2009) to answer questions that students may have. This study will follow the lead of previous self-efficacy researchers by using a Likert-like survey to measure the self-efficacy of upper elementary ELs.

As discussed above, in the study of self-efficacy particularly, the survey has been the predominant tool for gauging the personal self-efficacy towards a specific topic. The term survey, in this instance, describes the gathering of data regarding a certain area of study (Mackey & Gass, 2005). The main benefit of questionnaires or surveys, as it pertains to this research, is that it allows for data based on the same prompts that can be compared among similar students (Mackey & Gass, 2005). This allows for data that can
be compared and analyzed more easily and accurately than would mostly short response or interview responses.

By using raw data and a Pearson correlation, this research will be able to determine if a correlation exists. If there is a positive correlation high self-efficacy scores will correspond to large reading improvements and low self-efficacy will correspond with low reading improvements. I will be attempting to determine a correlation rather than a cause and effect since previous research is unclear on whether any relationship even exists between self-efficacy and reading achievement for late elementary students and ELs in particular. Finding a correlation is the first step before identifying a cause or effect.

Though the research is primarily quantitative in nature, a mixed method approach is used in the final survey question to allow subjects to describe their reasoning. As Mackey and Gass (2005) state, the purpose of a correlational or associative study is to determine the strength of a relationship. To do this, data and subsequent statistical analysis is needed, which is also quantitative in nature. The study will not be doing observational analysis or descriptive analysis of particular students or situations, as a strictly qualitative study might, because this will allow for more subjects and less bias from the researcher who knows the subjects well. Instead, as the research questions are designed to determine mathematical relationships, through the use of a Pearson correlation, a quantitative method will be used. As mentioned previously, there will be an open response question, which will be used to ascertain more personal information that may help the researcher determine reasons for self-efficacy responses, though this is not the main focus of the study.
Setting and Participants

The setting of the study was an elementary school in a mid-sized regional rural hub in the mid-western United States. The school population as a whole was 22.8% EL and 64.6% free and reduced lunch (MN Dept. of Education, 2014). The participants in the study were twenty-one students in grades four and five who had attended school in the United States since first grade and were either current or former ELs. These students came from homes where Somali or Spanish were spoken.

The first criterion for inclusion in the study was that the student qualified for EL services, meaning that she or he had responded with a language other than English on the student’s Home Language Questionnaire. Meeting this standard the student must currently have been in fourth or fifth grade, had taken the World-class Instructional Design and Assessment (WIDA) Assessing Comprehension and Communication in English State-to-State (ACCESS) test in 2015 and 2014, and had been enrolled in school in the US since at least first grade. The reason for these criteria was that in order to address the research question specifically students needed to have had time and opportunity to become at least a mid-level EL student. To focus on the mid-level and higher students, all students who had reached an overall WIDA ACCESS level of 3 or higher were included. WIDA generally assumes a one-point growth per year on the ACCESS assessment. Therefore, a student who, in at least three years, had made it to the third level was not dramatically behind the student’s language-learning peers.

Additionally, students meeting these criteria, in the school being studied, received similar amounts and types of EL and mainstream instruction in reading.

Those with a score lower than 3 who fit the criteria often had other reasons for not
making expected improvement, and this would have introduced unwanted variables into the study. A correlation or associative study, such as this, is only designed to compare the relationship between two variables, in this case reading proficiency growth and self-efficacy. Other variables, as indicated by a score in the one or two range of the WIDA scale after three or four years, would have called any conclusions into doubt. Students with a WIDA scale score in the 1 and 2 range also received a different reading service model at the school from those with scores in the 3-5 range at the school. Therefore, students scoring at a level three on the ACCESS test, as well as those who have improved further in their English development, are the students that were compared to see if self-efficacy played a role in their reading proficiency growth.

Data Collection and Instruments

For this study, data was collected from three instruments. These instruments were the Assessing Comprehension and Communication in English State-to-State (ACCESS) test developed by World-class Instructional Design and Assessment (WIDA), the Northwest Evaluation Association (NWEA) developed the Measures of Academic Improvement (MAP) reading test, and a Likert-like survey based on the CLASSMaps survey Believing-in-Me subsection. While I modified the survey for this study, neither the WIDA ACCESS test nor the NWEA MAP test were developed by me. The NWEA MAP and WIDA ACCESS tests were used to determine how strong the predictive relationship was between self-efficacy and reading proficiency increases.

WIDA ACCESS

The WIDA ACCESS test is a widely used test given each spring to ELs. This is a common EL test administered annually by many states, Minnesota included. This test is
given in the studied district to measure ELs’ development on the English Proficiency Standards (ELPs) that WIDA supplies (WIDA, 2014). This test has been research tested and found to be valid for this purpose (Fox, 2011). Students receive a range composite score between 1 and 6 (WIDA, 2014) in the domains of listening, speaking, reading, and writing. The reading section consists of 6-7 sections. Each represents one of WIDA’s English Language Development (ELD) standards. Students read short readings on a single topic and then answer a small number of multiple-choice questions about each reading. I used WIDA ACCESS test score data from the year of the study and the year prior to the study for each student in order to determine if a correlation exists between self-efficacy and improvement in English language reading proficiency.

NWEA MAP

While the WIDA ACCESS provides data on the students’ ELP reading development, their individual academic reading achievement was assessed through their scores on the NWEA MAP reading test. The NWEA MAP reading test is an advancing computer-based reading test that at the time of the study was given in the district three times a year. According to NWEA (2014), the test is designed to gauge student growth in reading and be predictive of state Minnesota Comprehensive Assessment (MCA) reading results. The correlation between the reading NWEA MAP and the reading MCA, which is designed to test state reading standards, was above .81 for each of the grades in the in this study (NWEA, 2014). Students had taken this multiple-choice test three times a year since arriving at their current school and this data was available to all teachers. For the purposes of this research, the improvement from the previous spring to the current spring was used. The test gives increasingly challenging items as students make correct choices
and easier items if they struggle. Students receive a Rausch Unit (RIT) scale score between 161 to above 230 (NWEA, 2012) which indicates the difficulty of question that the student will answer correctly half of the time.

**Survey and Pilot Study**

In order to assess student self-efficacy levels, a survey was constructed on a five point Likert-like scale with answers ranging from never to almost always. Though a four-point scale was found to be the most reliable for elementary age students in a study by Doll et al. (2010), this study will use of a five-point due to participant confusion on the four-point scale in a pilot study of the previous year’s fifth grade students. These questions were designed to ascertain a student’s belief that she or he can successfully perform the tasks needed to be successful in a certain area, such as reading or science (Doll et al., 2010). There were six positively worded statements that students responded to by checking the answer box that most closely resembled their feelings (see Appendix A). These questions were taken from the CLASSMaps survey’s Believing In Me subsection (Appendix B), which Doll et al. (2010) found to have an internal consistency of .82 which means it can be used and trusted independently of the larger survey, which was reiterated by LeClair et al. (2009).

In the pilot study of the previous year’s fifth graders, questions were taken directly from the CLASSMaps survey Believing in Me subsection, but these proved to be too wordy for some of the participants. These difficulties on the pilot survey led me to shorten the questions and to make the questions more specific to reading. Also, when the final two questions presented a wording other than “I can”, some participants became confused. In response, the current survey has statements that are written in the first
person, to make them as accessible and personal as possible for struggling readers, and reflect students’ attitude towards academic reading tasks. For example, question number one asks students to rate themselves from never to almost always on the question “I can do my reading tasks well in school”. This question asks students to rate their ability to perform the necessary tasks that a grade level reader can do to be successful. Changing the questions’ wording and number does mean that any findings from the current study would need to be externally validated. In the end, the questions are very similar to those in the Doll et al. (2010) study, but modified for length and subject area.

With each question yielding a value of one through five the total possible would be 30, signifying the highest self-efficacy, while the least possible would be 6 and the lowest self-efficacy. Many of the current study’s methods were modeled after work by Leclair et al. (2009), due to similarities in participants’ age and EL status. Leclair et al. (2009) also found the survey to be appropriate for ELs.

There was also one free response, for students to provide further information. This free response question was not scored nor was the data designed to determine the strength of the relationship between self-efficacy and reading proficiency. Instead, the free response portion was designed to ascertain why students have high or low self-efficacy towards their academic reading. This was not a main goal of the study, but could provide further information and understanding as to why a relationship is strong or weak between self-efficacy and reading proficiency.

Using a survey did produce difficulties for this study, but the benefits outweighed the drawbacks. The first difficulty was in ensuring that the students understand the specific survey items. For this reason, the researcher completed a pilot test on similar
students to refine the questions. The questions were also similar enough that strong variation among answers would highlight misunderstanding. This meant that students should score on each item in generally the same range because the items all relate to the rather narrow focus of academic reading. Another challenge, as highlighted by Mackey and Gass (2005), was that students might have difficulty completing a survey that is not given in their L1. To combat this, the survey was given individually so that students could ask for clarification as needed from the proctor. Another difficulty stemmed from students’ wishing to pick the “right” answer, thus biasing the data elicitation (Mackey and Gass, 2005). Though this bias was difficult to control for, the free response answer could help to interpret the data if there were inconsistencies.

Procedure

This study was completed near the end of May. This timing was after the WIDA ACCESS test and the final NWEA MAP test were administered. The survey can be seen in Appendix A. Students were chosen because they had been in school in the United States since first grade, had reached the third level on the WIDA ACCESS test, were currently in fourth or fifth grade, and had taken the ACCESS test in 2014 and 2015. This ended up consisting of ten girls and eleven boys.

The survey was administered in a small group setting with no more than four students at a time. I served as the proctor so that students would be comfortable, I would be able to answer questions, and I could take note of students who were deviating from their normal routine. The small group setting is a change from the common practice of administering surveys to larger groups of elementary students (Joet et al., 2011; LeClair et al., 2010). This change was made to limit the amount of unreliability due to students
answering to obtain social desirability, or picking answers that were seen as correct rather than honest. Students who might change answers to please the teacher were deemed to be less of a problem than peer judgments, but this must be considered in the results of the study. The students were also assured that there was no correct answer to any question and that only I would see their answers.

Upon entering the room, the survey and a pencil were passed out to the students. The students did not put their name on the survey, to reinforce their sense of anonymity. I read the individual items to the students and I ensured students understood the question and followed along. Answering questions and making sure the student is not lost is common when surveying elementary students (Doll et al., 2010; Joet et al., 2011; LeClair et al., 2010). When each student had finished answering, or had stopped writing for more than five minutes, the survey was collected and stored in a locked room until all participants had completed the survey. Students were asked not to discuss their answers with others. All surveys were completed over the course of two days to allow for any absent students to be included.

The WIDA ACCESS was given annually in February or March and the school administered the NWEA MAP reading test in October, January, and May respectively. These tests are administered in group-settings or individually as dictated by the test-maker’s instructions. A student’s results are available to all teachers in the school who work with that student. I accessed the students’ results and these results are used in various figures and tables throughout Chapter Four.

Data Analysis

Survey answers were given a numerical value of one through five. The sum of
these scores was then statistically compared to the student’s reading growth on the WIDA ACCESS from the previous year to the current year score. The sum of the survey scores was also compared to the student’s growth on the NWEA MAP reading from the previous spring to the current using. To complete each of these comparisons the Statistical Package for Social Sciences (SPSS) was used, a common tool in self-efficacy studies (Pajares, 1996). This analysis yields an r-value that indicates either positive, negative, or no relationship among variables. The Pearson correlation of reading growth on the WIDA ACCESS and NWEA MAP tests was used in conjunction with the survey results to determine the strength of the relationship between self-efficacy and reading achievement. This method was chosen because this study seeks to determine the strength of a positive relationship between self-efficacy and reading proficiency increases.

In addition to the correlation (r-value) that a Pearson analysis yields, a regression analysis was run to determine the p-value for each relationship studied. As Nuzzo (2014) discusses, this value gives the probability that the same r-values would be obtained if there were no relationship between the variables tested. A lower p-value increases the likelihood that the hypothetical relationship among the variables being tested exists. As Nuzzo (2014) cautions, this is not meant to confirm findings. In most research a p-value below .05 is considered significant, meaning that further research is warranted into a likely relationship. For this study the threshold of .05 was used as a strong significance indicator, though p-values ranging up to .15 were determined to be possibly significant.

A last analysis that was found is a confidence interval for many of the correlational coefficients, with a setting of 95%. This gave the range in which we can expect to find 95% of the correlational coefficients if we were able to repeat the test a
multitude of times. A confidence interval is suggested when the number of participants is low and when tests are being repeated on the same set of data. This helped guard against falsely low p-values.

Verification of Data

The standardized test data measurement tools were chosen based on their reliability and broad use. The NWEA MAP reading test has marginal reliabilities measured in the low to mid .9’s across grade levels (Wang, McCall, Jiao, & Harris, 2012). This means that students with similar abilities will receive similar scores on the exam. This is important for the current study because it gave an accurate estimate of the students’ reading levels. Likewise, the reliability of the WIDA ACCESS composite score has been rated consistently high. The score for the most recent version on the website (2014) was a .934 for the third through fifth grade test version. Again, this means that similar student abilities will yield consistent scores. The original survey, from the CLASSMaps Believing in Me section, produced an internal consistency of .82 (LeClair et al., 2009). This means that questions designed to measure similar constructs will give similar results. The survey given to the students in the current study was slightly modified after a pilot study as previously discussed, so there is not an internal consistency calculation. However, the modifications are minor and aided student understanding of the survey questions. This is important because the study’s survey asked students to judge their self-efficacy using a variety of questions designed around the same fundamental construct of grade level reading.

Ethics

Prior to beginning research, I received permission from Hamline University to
conduct human subject research. Additionally, I received permission from the cooperating school district to conduct research and use the participants’ test scores. Each participant in the study was given a consent form to take home. Also, phone calls were made by the school liaisons explaining the form to those parents who needed further explanation. The students and their parents were required to sign a consent form to be part of the study. Participants were informed that they could withdraw from the study anytime, without prejudice. All names or identifying information were removed from the survey and assessment results. The collected data was stored at the school in a locked room and shredded when it was no longer needed.

Conclusion

This chapter described the methodology of the current research project. The rationale for using a survey to determine academic self-efficacy was discussed as well as the specific format of the survey. Additionally, the assessment measures that were compared to the survey results were described. The data analysis tools that were used to determine if there is a correlation between self-efficacy and reading achievement were also discussed. The next chapter will share the results of this research.
CHAPTER FOUR: RESULTS

This study took place in the EL classroom of an elementary school in a county seat in the Midwestern United States. I taught and observed these students as readers for at least one year. The students were all mid to high-level ELs according to their prior test scores in reading, writing, speaking, and listening. A survey was given to 21 students: 10 girls and 11 boys. There were 9 fourth grade participants and 12 fifth grade participants. 13 students were Somali while the remaining 8 were Hispanic. By collecting and comparing the students’ WIDA ACCESS and NWEA MAP reading scores to self-reported self-efficacy responses I sought to answer the following question: What is the strength of the relationship between student academic self-efficacy for reading and reading proficiency increases for upper elementary ELs?

The chapter begins by analyzing the survey responses to find trends in the self-reported self-efficacy levels each grouping of participants. These groupings consist of all participants, self-efficacy level, gender, and WIDA ACCESS reading proficiency level. After presenting the survey results, the participants’ survey results are statistically compared to the participants’ improvement on the NWEA MAP reading test and the WIDA ACCESS reading test. This comparison seeks to determine how strong the relationship is between student academic reading self-efficacy and reading proficiency growth and reading proficiency level for EL elementary students. When comparing self-efficacy to the test improvements, I looked at the same sub-groups as for the survey.
results: all participants, self-efficacy level, gender, and WIDA ACCESS reading proficiency level.

Survey Results

The survey consisted of six statements to which students responded by ranking themselves on a Likert-style five-point scale with a total possible score of 30 (Appendix A). A five meant that the statement *always* pertained to the student. A three meant the statement *sometimes* pertained to that student. A one meant the statement never pertained to the student, and a four or two indicated usually and not usually respectively. The survey had three reading situation categories. Each category had two statements that sought information on the student’s self-efficacy in a particular reading situation. The categories were *Compare to Others* (statements 2 and 3), *Hard Work/Effort* (statements 4 and 5) and the final two, *General Reading* (statements 1 and 6). Each category, therefore, had a total possible of 10 and a total reading efficacy score of 30 when the categories were combined. There was also a short response question on the back of the survey for students to explain why he or she considered reading easy, medium, or hard. For the discussion of specific student responses or test scores I have numbered the students 1-21.

The results of the Likert portion of the survey are tabulated in Table 1 below.
Survey Results for All Participants

As shown in Table 1, the students’ total reading self-efficacy response scores for the survey ranged from 15 to 30.

Question four “I can do the hard work in reading” had a much lower mean response, 3.57, than the other questions, while questions five and six, both relating to general reading self-efficacy, had the highest mean responses at 4.57. The average
response for each question is shown in Figure 1 below.

![Average Survey Response by Question](image)

**Figure 1. Average Survey Response by Question**

Additionally, questions one through four each had a range of responses from 2-5 while question five and six each had a range of 3-5 suggesting that students report higher self-efficacy toward reading in the *General* category than they report in more specific situations such as helping others or doing difficult reading.

**Survey Result Trends by Self-efficacy Level**

One way to view the self-efficacy survey results is by grouping the participants by their reported self-efficacy level. For the purposes of this discussion, high reading self-efficacy included students who had a total of 28-30 on the survey. This means that these students’ average response was above 4.5. These were the only students who rated themselves in the *always* level for the majority of questions. Medium self-efficacy were students with survey totals of 22-27. The students with scores in this range had an average response of 3.5-4.5 on each question. These students all rated themselves as 5 on at least one question and no lower than 3 on any question. Low reading self-efficacy was a total score below 21 which would mean an average response of 3 or below for each question. These students either had no responses of 5 or at least one response of 2.
Broken down by these levels, the results of the students’ self-efficacy survey are: seven students in the high-efficacy group, eight in the medium-efficacy group, and six in the low-efficacy group. The breakdown of self-efficacy levels on the survey is shown in Table 2 below.

Table 2

*Reading Results by Reading Self-Efficacy Level*

<table>
<thead>
<tr>
<th>Total Survey Score</th>
<th>Compare to Others Questions 2 and 3</th>
<th>Hard Work and Effort Questions 4 and 5</th>
<th>General Reading Questions 1 and 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Reading Self-Efficacy</strong></td>
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<td><strong>Medium Reading Self-Efficacy</strong></td>
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<td><strong>Low Reading Self-Efficacy</strong></td>
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<td>21</td>
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</table>
The spread of responses for the high reading self-efficacy group for each category (Compare to Others, Hard Work and Effort, and General) is one. All seven participants within this group responded with either 9 or 10 within each category. In the medium reading self-efficacy group, the spread of participant responses for the Compare to Others category is three while the other two categories both have a spread of three. The low reading self-efficacy group had a spread of three for both the General and Hard Work and Effort categories and a spread of two for the Compare to Others category. Among the low reading self-efficacy group, none of the participants reported self-efficacy above six in the Compare to Others category. This indicates that these students feel that they only sometimes can do as well as others or help others in reading.

Survey Result Trends by Gender

A third way to analyze the survey result data is by gender. The survey responses broken down by gender are shown in Table 3 below.
There were nine girls and twelve boys who took part in the survey. Both gender subgroups reported the lowest self-efficacy on questions in the *Compare to Others* category. Each of these sub-groups reported the highest self-efficacy on the questions in the *General* category, which asked for general ratings of their reading abilities. Five out

<table>
<thead>
<tr>
<th>Total Survey Score</th>
<th>Compare to Others Questions 2 and 3</th>
<th>Hard Work and Effort Questions 4 and 5</th>
<th>General Questions 1 and 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>10</td>
<td>10</td>
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</tr>
<tr>
<td>19</td>
<td>5</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Avg.</td>
<td>24.67</td>
<td>7.89</td>
<td>8.11</td>
</tr>
<tr>
<td>Boys</td>
<td></td>
<td></td>
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<td>19</td>
<td>5</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>15</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Avg.</td>
<td>23.75</td>
<td>7.33</td>
<td>8.17</td>
</tr>
</tbody>
</table>
of twelve male respondents, or 43%, chose five or six in the Compare to Others category. This means that 43% of males felt that only sometimes they can do reading work as well as peers. Another result of note is that the girls had a lower standard deviation, which shows a narrower spread of data, or more consistency in responses.

Survey Results by WIDA ACCESS Reading Proficiency

The final subgroup that was done for the survey results was to sort the students by their WIDA ACCESS reading proficiency. On the WIDA ACCESS test an overall reading score of 5-6 is considered at or near the level of native language peers. For the purpose of this study, students who scored above a 5 on the reading portion of the WIDA ACCESS were in the Met Proficiency group as this is the level that WIDA has suggested and the district has set for proficiency. Those participants scoring below a 5 were in the Did Not Meet Proficiency group. The survey results for each group are in Table 4 below.
From this data we see that the 12 students who met proficiency on the reading portion of the WIDA ACCESS test reported a higher average self-efficacy score than students who did not meet proficiency. Of note, even among the seven students who scored 6 on the WIDA ACCESS, the highest possible outcome, their self-efficacy score
ranged from 28 to 19. This would mean that even among the highest performing readers, according to this test, some students vary in responses that they always, usually, and even only sometimes can perform reading tasks. Both groups, those that met proficiency and those that did not meet proficiency, consisted of students who reported high self-efficacy (28-30), medium self-efficacy (22-27), and low self-efficacy (below 22).

In summary, the survey participants’ responses indicated a couple of trends. The participants ranged from very high self-efficacy, a score of thirty, to having self-efficacy responses that showed an average answer of sometimes to each statement and scored a fifteen out of a possible thirty. When broken down by question category, students reported the lowest self-efficacy on statements that asked them to compare themselves to their peers and the highest on questions that asked for a more general gauge of their reading. The statement that had the lowest mean response was statement four, I can do the hard work in reading, which suggests that many students may feel less efficacious when shown tasks that they perceive, or are told by others, are difficult. This overview of the survey responses shows that students vary in their levels of self-reported reading self-efficacy. Next the survey response data will be compared to standardized reading test improvement data.

The Relationship between Reading Test Growth and Survey Responses

To determine if a correlation exists between academic reading self-efficacy and reading proficiency growth for EL elementary students, data from two standardized reading tests was collected for analysis. This data was first examined in relation to each self-efficacy survey question category: Hard Work and Effort, Compare to Others, and General. Next, each test, NWEA MAP reading and WIDA ACCESS reading was
compared to the self-efficacy survey in four ways. First, all participants and the relationship between their self-efficacy survey response scores and participants’ yearly improvement on each test will be discussed. Next, students were grouped by self-reported self-efficacy levels, high, medium, and low, to compare self-efficacy to test improvements on each of the two exams. Then the students were sorted by gender to see if one gender shows a stronger relationship between reading improvement and self-efficacy scores. Finally the students were grouped by reading proficiency level to determine if higher readers or lower readers show a stronger relationship between their reading improvement and their self-efficacy.

Reading Improvement and Self-Efficacy for All Participants

To begin the discussion on reading improvement and self-efficacy, Tables 5 and 6 below show reading test improvement results and self-efficacy survey results.
Table 5

**WIDA ACCESS Reading Improvement and Survey Results**

<table>
<thead>
<tr>
<th>WIDA ACCESS Improvement</th>
<th>Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>30</td>
</tr>
<tr>
<td>1.4</td>
<td>28</td>
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<td>1.2</td>
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<td>0.4</td>
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<td>0.2</td>
<td>22</td>
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<td>0.1</td>
<td>21</td>
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<tr>
<td>-0.7</td>
<td>26</td>
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<tr>
<td>-1.1</td>
<td>15</td>
</tr>
<tr>
<td>*</td>
<td>23</td>
</tr>
<tr>
<td>*</td>
<td>21</td>
</tr>
</tbody>
</table>

*Note.* Expected yearly growth on the ACCESS is .7-1.0.

* represents students having scored a 6 on the WIDA ACCESS the previous year and the year in question
This data showed a high degree of variation. Looking at individual participants, two students reported low levels of self-efficacy but made strong growth on the NWEA MAP and one of these students made strong growth on the WIDA ACCESS as well. On the other side, another student reported very strong self-efficacy, but made growth that was just below expected on both reading measures. Meanwhile another student reported medium self-efficacy towards reading but made expected growth on the WIDA ACCESS and tremendous growth on the NWEA MAP. On the surface it would appear that the relationship between academic reading growth and reading self-efficacy is not strong or 

<table>
<thead>
<tr>
<th>NWEA MAP Improvement</th>
<th>Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
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<tr>
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<td>2</td>
<td>24</td>
</tr>
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<td>1</td>
<td>28</td>
</tr>
</tbody>
</table>

*Note.* expected growth for fourth and fifth grade on NWEA MAP reading is 8-10
consistent for this group of students. To further understand the relationship each survey question category was looked at individually to seek a stronger relationship between reading growth and self-efficacy.

**Reading Improvement and Survey Results by Question Type**

In order to determine if a stronger correlation between self-efficacy and reading improvement was present in different reading circumstances, the results of each survey statement category were analyzed. Two statements from the survey dealt with students comparing their reading to their peers. These statements are from the category *Compare to Others* and are statements two and three of the survey. The next category was statements related to ability if hard work or effort were required. These are labeled *Hard Work/Effort* and refer to statements four and five of the survey. The final category was about student reading in general. These are labeled *General Reading* and are statements one and six of the survey. This data was compiled in Table 7 below. The table compares the survey statement category to the NWEA MAP reading improvement and the WIDA ACCESS reading level improvement.

**Table 7**

<table>
<thead>
<tr>
<th>Correlation by Question Category for NWEA and ACCESS Reading Improvement</th>
<th>NWEA Reading</th>
<th>ACCESS reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compare to Others (Statements 2 and 3)</td>
<td>r-value</td>
<td>p-value</td>
</tr>
<tr>
<td></td>
<td>-0.23</td>
<td>0.33</td>
</tr>
<tr>
<td>Hard Work and Effort (Statements 4 and 5)</td>
<td>r-value</td>
<td>p-value</td>
</tr>
<tr>
<td></td>
<td>-0.22</td>
<td>0.34</td>
</tr>
<tr>
<td>General Reading (Statements 1 and 6)</td>
<td>r-value</td>
<td>p-value</td>
</tr>
<tr>
<td></td>
<td>-0.49</td>
<td>0.02</td>
</tr>
</tbody>
</table>
This data showed that across nearly all question categories the participants’ NWEA MAP test improvements appeared to negatively correlate with the participants’ self-efficacy. The significance values (p-value), which was set at < .05, were all above the significance for this study except for the General Reading category. This suggested more strongly that a negative relationship might exist for the General Reading category of the survey in comparison to NWEA MAP Reading improvement than for the other categories of the survey.

Using the data from Table 6, analysis indicated a likelihood that a positive relationship existed between WIDA ACCESS reading improvement and self-efficacy among the participants. Each category showed a moderate to strong positive relationship with significance values well below the standard set for the study. This finding led to further examination of the data regarding the WIDA ACCESS reading test.

**WIDA ACCESS Reading Improvement and Survey Results for All**

Each EL student in the district takes the WIDA ACCESS on an annual basis. This occurs in February or March. The reading component is one aspect of this test. The lowest score possible is 1.0 and the highest is 6.0. For the purpose of this test, gauging improvement, I compared the reading score from the 2013-2014 test to the 2014-2015 test. For context, students who achieve 5.0 are considered on track with English-speaking peers and students are generally expected to make 0.8-1.2 points of improvement per year (WIDA, 2014). Table 8 shows the participants’ survey results, WIDA ACCESS reading improvement, and overall 2015 WIDA ACCESS reading score.
These results show six of seven students in the high self-efficacy group (28-30) making expected or larger gains (0.8 or greater) on this reading test, while three of five students in the low self-efficacy group (21 or less) showed less than expected gains (less than 0.8). Three students made improvements greater than the mean gain, which was 0.68, while also having self-efficacy scores above the mean of 24.14. In addition, four students had lower than average gains and lower than average self-efficacy. This data suggests a positive relationship between self-efficacy and reading improvements. It

Table 8

<table>
<thead>
<tr>
<th>Survey</th>
<th>ACCESS Improvement</th>
<th>Spring ACCESS</th>
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<tbody>
<tr>
<td>30</td>
<td>0.6</td>
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<td>3.3</td>
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<tr>
<td>15</td>
<td>-1.1</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Note. an asterisk shows students scoring a 6 the previous year that couldn’t progress
should be noted that a score dropping is rare in my five years of experience administering this test, with most students maintaining or improving each year. Therefore, the falling scores for students 7 and 17 may need to be further evaluated. Further analysis was conducted to understand the relationship.

Upon running a Pearson coefficient of this data the hypothesized positive relationship between students’ self-reported self-efficacy and reading improvement on the WIDA ACCESS was shown. When comparing the survey results to student improvement on the reading section of the ACCESS the results were n= 17, r= .54, p-value =.02, and 95% CI [0.11, 0.8]. An r-value of 1.0 would be a perfect positive relationship while 0 would be no relationship and -1.0 would be a perfect negative relationship. Therefore an r-value of .54 shows a strong positive relationship between reading self-efficacy and WIDA ACCESS reading improvement with all participants in this analysis. This p-value strongly supports the finding of a possible positive correlation for this set of data. This data is displayed in Figure 2.

![Figure 2. Survey Results and WIDA ACCESS Reading Change](image-url)
When comparing the survey to the overall spring 2015 ACCESS reading test, the results were n=19, \( r=0.20 \) with a p-value of .38 and a 95% CI [-0.06, 0.7]. This p-value does not support the finding of a correlation between the spring ACCESS score and the self-efficacy survey. Next, the self-efficacy results will be compared to the NWEA MAP reading.

**NWEA MAP Reading Improvement and Survey Results for All**

Three times each year, the study participants at this school take the NWEA MAP reading and math tests. To capture a year’s worth of improvement, I compared the students’ reading results from May 2014 to May 2015. This resulted in a Rasch Unit (RIT) Scale Score improvement ranging from 1 to 24. For context, the expected growth for a school year, September through May, is about 10 points, varying slightly depending on incoming level (NWEA, 2014). For example, a student who scores 187 in the fall and 197 in the spring would be considered making expected progress. The mean improvement for this group of students was 8.10, which is below the expected increase. Table 9 below shows the students’ NWEA MAP improvement and overall score as well as their overall NWEA MAP reading score to give an indication of their reading level.
This data table indicates that improvement on the NWEA MAP did not seem to show a relationship with self-efficacy scores. For example, one participant had very high self-efficacy, shown by 30 on the survey, but marginal improvement, 2 points, on this reading test. This student did, however, have an overall NWEA MAP score that is at or above grade level. In contrast, two students had self-efficacy that is low compared to their EL peers, 19 on the survey, and yet made strong gains on the NWEA MAP in the 2014-2015 school year.
Upon running a Pearson correlation, a lack of a correlational relationship was confirmed. Again, a perfect-positive correlation would have a value of 1 while a perfect negative correlation of -1. If no relationship were found, the correlation would be 0. Comparing the survey results to NWEA MAP improvement found values of n=19 and $r = -0.33$ with a p-value = .14 and a 95%CI [-0.67, 0.12]. This p-value shows an 86 percent chance that the results are more than random chance. This is just outside the realm of significance for the current study; therefore this data did not support the hypothesis that students who have high reading self-efficacy would also show high improvement in reading. In fact, this r of -0.33 would show a moderate negative relationship where students’ higher self-efficacy score is more likely to coincide with a smaller increase in their reading improvement, though this finding has limited confidence at p-value of .14. This data can also be seen in the Figure 3 below.

*Figure 3. Student Survey Results and NWEA MAP Growth*

To summarize, comparing reading test data and self-efficacy survey results, this data showed a strong positive relationship between WIDA ACCESS results and self-
efficacy when all participants were analyzed. In contrast the NWEA MAP reading showed a possible moderate negative correlation with self-efficacy, though the significance was outside the parameters for this study. Next we will see if these relationships hold true for different groupings of participants, beginning with high, medium, and low self-efficacy participants.

Reading Improvement by Self-efficacy Level

The correlation for each self-efficacy group was found by sorting the students into the same high, medium, and low self-efficacy groups as discussed previously and then running a Pearson Correlation for each group individually comparing their self-efficacy score and WIDA ACCESS reading improvement within just their own group. When analysis was run, none of the groups’ data produced p-values that supported confidence in the correlations being anything more than random chance, though the low group was approaching a level of significance in the findings of a strong positive correlation. The high self-efficacy group produced a 95% CI [-0.8, 0.7] while the medium self-efficacy group showed a 95% CI [-0.82, 0.67]. The low self-efficacy group produced a 95% CI [-0.41, 0.98]. The data did not support a relationship between self-efficacy and WIDA ACCESS reading improvement within high, medium, or low self-efficacy subgroups. The results are shown in Table 10 below.
When the relationship between self-efficacy and NWEA MA reading improvement were analyzed by self-efficacy level, it was also difficult to find a relationship. These results are shown in Figure 4 below.

Table 10

<table>
<thead>
<tr>
<th></th>
<th>N-value</th>
<th>R-value</th>
<th>P-value</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Self-efficacy</td>
<td>5</td>
<td>-0.11</td>
<td>0.81</td>
<td>[-0.8, 0.7]</td>
</tr>
<tr>
<td>Medium Self-efficacy</td>
<td>5</td>
<td>-0.17</td>
<td>0.72</td>
<td>[-0.82, 0.67]</td>
</tr>
<tr>
<td>Low Self-efficacy</td>
<td>3</td>
<td>0.74</td>
<td>0.15</td>
<td>[-0.41, 0.98]</td>
</tr>
</tbody>
</table>

Figure 4. NWEA MAP reading Change by Self-efficacy Level

Among the high self-efficacy group, n=5, a Pearson Correlation yielded r-value of .06, a p-value of 0.9 and 95% CI [-0.73, 0.78]. This does not show a relationship with a low significance finding. The medium self-efficacy group, n=6, had r-value of .18 with a p-value of 0.67 and a 95% CI [-0.6, 0.79]. This indicates a possible slight positive relationship but with no significance; the findings may be random. The low self-efficacy group, n=6, had an r-value of -0.23 with a p-value of .67 and 95% CI [-0.88, 0.72], which indicates a slight negative relationship, but again there is no significance associated with the finding.
These values do not support the overall finding for all participants of a moderate negative correlation due to the significance values and the wide spread of confidence intervals. When grouped by self-efficacy, no internal relationships between self-efficacy and reading improvement were found. In the next section, we will look at gender as a factor instead of self-efficacy level.

**Reading Improvement by Gender**

The next analysis that was performed was to run a Pearson Correlation to determine the relationship between reading improvement and self-efficacy level for girls and boys. On the reading portion of the WIDA ACCESS test, the boys showed a strong positive correlation between their reading score improvement and their self-reported self-efficacy. With all boys included, the analysis yielded an r-value of 0.84 with a p-value of 0.002 with n=8 and 95% CI [0.45, 0.96]. This is a remarkably strong positive correlation with a strong significance indicator and smaller confidence interval, suggesting that this is a likely relationship. To be sure that student 7 did not dramatically alter the data set, as this student did when the data was sorted by self-efficacy level, the analysis was run again without this student’s scores. Without student 7, the boys still yielded a strong positive correlation between self-efficacy score and reading improvement of 0.70.

Unlike the boys’ group, the girls’ group did not yield a strong positive or negative correlation and showed little mathematical significance with a p-value of 0.9. When the Pearson Correlation was run on the data set for the girls’ group, the r-value was only -0.05 95%CI [-0.69, 0.64] with n= 7. This shows virtually no relationship between self-efficacy score and change in WIDA ACCESS reading score. These relationships are shown in figure 5 and figure 6 respectively.
As can be seen, the boys had a much more positive relationship trend in this data. Five participants having had a higher self-efficacy score in conjunction with more improvement on the WIDA ACCESS reading indicated this trend. The girls’ subgroup, conversely, had a more scattered data set. Three students improved by one on the WIDA ACCESS reading, but had disparate self-efficacy scores. Next, the relationship between

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*Figure 5. Boys’ WIDA ACCESS change and Self-efficacy*

*Figure 6. Girls’ WIDA ACCESS change and Self-efficacy*
self-efficacy and the NWEA MAP reading improvement for girls and boys subgroups was analyzed.

When the self-efficacy and NWEA MAP reading data were analyzed by gender, both girls and boys yielded a Pearson Correlation that indicated a possible moderately negative relationship. The girls’ subgroup, n= 7, indicated a slightly stronger negative relationship with r-value of -0.43, p-value of .25 and 95% CI [-0.85, 0.33]. The boys’ subgroup, n= 10, yielded an r-value of -0.34 with p-value of .27 and 95% CI [-0.76, 0.29]. These p-values are beyond the threshold set for this study, so there is little significance in the correlational findings. This is contrary to the findings, by gender, that were found on the WIDA ACCESS reading. The WIDAACCESS reading correlation was positive for the boys’ subgroup while the NWEA MAP reading correlation only indicated a negative relationship. The graphs for this data are shown in figures 7 and 8 below.

Figure 7. Boys’ NWEA MAP Change and Self-efficacy
The final groupings that were analyzed were the students who met WIDA ACCESS reading proficiency and the students who did not. To review, a WIDA ACCESS reading score above 5 indicates native-like reading abilities. Within both groups, the students who met reading proficiency on their WIDA ACCESS test and those who did not, analysis revealed a slight positive correlation. For students who met proficiency, n=8, the Pearson Correlation yielded r-value of 0.25 with p-value of .08 and 95%CI [[.0.45, 0.76]. This result neared significance indicating that the findings may be valid. This data is shown in Figure 9 below.
Figure 9. Met Proficiency WIDA ACCESS Change and Self-efficacy

Like the group who met proficiency, the group that did not meet proficiency, n=7, also showed a slight positive relationship with r-value of 0.16, a p-value of 18, and a 95% CI[-0.56, 0.74]. This p value was outside the significance level for this study. There did not appear to be a relationship as can be seen in Figure 10 below. The data appears more varied than in Figure 9.

Figure 10. Did Not Meet Proficiency WIDA ACCESS Change and Self-efficacy
The findings of a possible slight positive relationship within the groups when broken down by reading proficiency supported the positive relationship found when all participants were used together. With this finding of a positive relationship between self-efficacy and reading improvement for the WIDA ACCESS test, analysis was run to determine if there was also a relationship between self-efficacy and reading improvement on the NWEA MAP when the participants are grouped by reading proficiency.

The relationship between NWEA MAP reading change and self-efficacy for both the group that met reading proficiency and the group that did not were negative and significance findings were outside the accepted range for this study. The stronger relationship indicated was among the group that did not meet reading proficiency, n=10. This group’s data yielded r-value of -0.37, with a p-value of .32 and 95%CI [-0.78, 0.26], which was a significance finding outside this study’s range. This data is shown in figure 11 below. This is a moderately strong negative relationship.

![Figure 11](image_url)

*Figure 11.* Did Not Meet Reading Proficiency NWEA MAP Change and Self-efficacy
While the group who did not meet reading proficiency indicated a moderate negative relationship between NWEA MAP reading change and self-efficacy, the group who did meet reading proficiency, n= 9, indicated a very weak negative relationship. The r-value for this group was -0.18 with a p-value of .58 and 95%CI [-0.55,0.75] again showing little confidence in the findings. This data is shown in Figure 12 below.

![Figure 12. Met Reading Proficiency NWEA MAP Change and Self-efficacy](image)

The results of this study varied. Many groups showed a negative correlation between reading growth and self-efficacy. This negative correlation was especially evident when comparing self-efficacy to the NWEA MAP reading test, where five of the seven subgroups indicated at least a slight negative correlation when analyzing the scores within that subgroup as shown in Figure 13 below. These findings all have significance findings outside the threshold for this study, however, so there was no evidence found to support or disprove these relationships.
In addition, a moderate negative correlation was also found when all students were included in the analysis. In contrast, when comparing the self-efficacy scores to WIDA ACCESS reading growth for the subgroups, results were more mixed. Four of the seven subgroups showed at least a slight positive correlation as shown in Figure 14 below.

Note. All p-values for these groups were outside the significance range for this study, except for the all students group.

Figure 13. Self-efficacy and NWEA MAP Reading Growth for all Groups

In addition, a moderate negative correlation was also found when all students were included in the analysis. In contrast, when comparing the self-efficacy scores to WIDA ACCESS reading growth for the subgroups, results were more mixed. Four of the seven subgroups showed at least a slight positive correlation as shown in Figure 14 below.
Additionally, when all participants were analyzed a strong positive correlation with a strong significance indicator of a p value of .02 was found.

Summary

In summary, after running a regression to determine a Pearson correlation (r-value) with an associated significance value (p) and a 95% confidence interval (CI) for the subsequent correlational coefficient, data analysis pointed to a few correlations. This study found a probable positive correlation between WIDA ACCESS reading improvement and self-efficacy, though one students’ low efficacy score drop in WIDA ACCESS level may have contributed greatly to this finding. Additionally, two of the students’ subgroups, low self-efficacy and boys, also showed a positive correlation with significant p-values. One final group that showed a positive correlation was the students who met proficiency. In contrast to the positive relationship for the WIDA ACCESS test,
a possible moderate negative correlation was found between NWEA MAP improvement and self-efficacy. All other groups’ data analysis did not show evidence of a relationship.

In this chapter the results of the data collection were presented. In Chapter 5 findings from the previous data will be discussed. This will be followed by an examination of the limitations of the current study. The implications for future teaching and learning will be discussed and well as how these implications will be shared with the educational community. This will be by an overview of areas for future research. The section will close by sharing conclusions on the study in its entirety and the findings in particular.
CHAPTER FIVE: CONCLUSION

This chapter documents the findings of the current study, which asks: What is the strength of the relationship between student academic self-efficacy for reading and reading proficiency growth for upper elementary ELs.

This chapter discusses the findings of the research study, including similarities to previous research and differences from previous research. The variances in correlations among subgroups and between the two reading tests will be discussed. This is followed by how the current study’s findings can inform teaching of late-elementary ELs. The limitations of the current study are discussed and the section will end with suggestions for future research on the topic of self-efficacy and reading for ELs.

Findings

Finding 1: NWEA MAP reading improvement negatively correlates with self-efficacy

The first finding of the study is that NWEA MAP reading improvement may negatively correlate with self-efficacy. This is an unexpected outcome and seems to go against the findings of Bandura et al. (1999) and Bong (1997) among others who found that academic achievement and self-efficacy have a positive relationship. The relative weakness of the correlation, -0.33, and the lack of significance in the p-value findings, suggest that the relationship needs further study.

Upon further investigation of the data it appears that the survey’s questions regarding general reading self-efficacy pointed towards the greatest negative correlation.
This may suggest that when students are not comparing themselves to their peers or describing difficult reading tasks they believe that they can access grade level content. With prompts such as, “I can be a very good student in reading” or, “I can do my work well in reading” students are not thinking of specific reading tasks or experiences. This may support the work of Bandura et al. (1999) in their finding that more accurate self-efficacy to ability judgments stem from more task-specific questions. What this study shows is the inverse; less task-specific self-efficacy questions promote less accurate self-efficacy to ability judgments.

Another explanation for self-efficacy ratings that do not positively correlate with grade level ability may lie in the nature of computer adaptive testing and classroom differentiation. Students are encouraged, rightfully so, when they meet their personal goal and do well on their classwork or tasks regardless of the level of those tasks. These students may not realize that they are not doing grade level tasks or testing on grade level. If the disparity between their reading abilities and grade level expectation were shown to these students, it may lead to negative self-efficacy evaluation and could lead to further consequences such as depression (Bandura et al, 1999). As Pajares and Urdan (2006) caution, it is difficult to balance the nurturing of self-efficacy beliefs with the realism that comes with working with students who have a lot of academic ground to make up if they are to reach grade level.

**Finding 2: WIDA ACCESS reading positively correlates with self-efficacy**

The second, and seemingly contradictory, finding of this study is that self-efficacy positively correlates with WIDA ACCESS reading test results. While the NWEA MAP results seem to go against previous research, the WIDA ACCESS’s positive relationship
with self-efficacy support the findings of Bandura et al. (1999), Bong (1997), Mucherah and Yoder (2008), and Sani and Zain (2011). This positive correlation was seen overall (0.54), for boys (0.94), those reaching proficiency (0.64), and in those not reaching proficiency (0.49). The only group that showed no relationship was the girls’ subgroup (-0.14), which is a negative correlation that is considered insignificant.

Like previous research by Mucherah and Yoder (2008), this study found higher self-efficacy among girls with a mean score of 24.2 to the boys’ score of 24.09. In addition, also supporting Mucherah and Yoder (2008), the girls’ average WIDA ACCESS reading improvement of .69 was higher than the boys’ improvement of .55. These findings suggest that within the girls’ responses there must be participants whose reading improvements and self-efficacy score have a correlation that was weak or non-existent.

The one survey area that yielded a moderate correlation for the girls’ subgroup was in *Comparison to Others*. This correlation was a moderate negative correlation. This would mean that students who had larger improvements on the test viewed themselves less capable as compared to others. With questions on the survey stating, “I can do as well as most other kids in reading” and, “I can help other kids understand things in reading” this is an interesting finding. It would appear that students who are making large gains on the WIDA ACCESS do not have a strong belief that they are comparable to peers in reading while those making smaller gains believe that they are fairly comparable to peers. Whether this relationship shows a disconnect between students’ reading self-awareness and student awareness of peer reading ability is unclear and not a focus of the current study.
Finding 3: Standard deviation increased as scores decreased

The third finding of the study is that the student subgroup with the highest standard deviation, or spread of data, in students’ reading self-efficacy scores was the subgroup that did not reach native-like reading proficiency. Alone, this result may be an anomaly, but the subgroup with the lowest standard deviation was the subgroup that had reached native-like reading proficiency. When taken together, these two findings would seem to indicate that students who are further from grade level reading are more likely to have self-efficacy that is much higher or lower than their grade level academic reading experiences would support. These students would not have had the grade level mastery reading experiences that would lead to increased self-efficacy that Phan (2012) suggested.

One explanation for this variety of self-efficacy scores among students who would seem to struggle with grade level reading may be found in the role of teacher feedback. Corkett, Hatt, and Benevides (2011) found that some lower achieving students rely more on teacher feedback than personal experience to guide their self-efficacy growth. It may be that as teachers give positive feedback on lower than grade level work, the students are feeling accomplished and raise their self-efficacy, even though they are not necessarily meeting grade level standards. This heightened self-efficacy, to a point, is a benefit as it may lead to increased effort and engagement as suggested by McTigue et al. (2009), but academic self-efficacy also needs to be a relatively accurate reflection of academic ability so that students can establish realistic goals for their education (Pajares & Urban, 2005).
The data compiled for the current study yielded three distinct findings. The participants’ self-efficacy scores and NWEA MAP reading scores yielded a negative correlation when all participants were considered. This was in contrast to the positive correlation found between self-efficacy scores and the WIDA ACCESS reading scores. The third finding was that the students who scored the lowest on the WIDA ACCESS reading test had the largest variation in self-efficacy scores. While these findings are supported by data collected, there remain limitations to the scope of these findings.

Limitations

One of the main limitations of the current study is in the number of participants. The collected data and subsequent implications cannot be extended to the population of fourth and fifth grade ELs as a whole due to the small sample size. The population only consisted of two language groups in a single location, so the conclusions cannot be projected to other populations, other locations, or other groups of students. Additionally, the small number of participants, twenty, increased the effect score variations among students had on the overall findings.

The second limitation is in the utility of the conclusions drawn. By finding a possible negative correlation between NWEA MAP reading improvement and self-efficacy and a moderate positive correlation between WIDA ACCESS reading improvement and self-efficacy, this study has only shown a possible relationship. Future research is needed to determine further if there is a relationship between NWEA MAP reading improvement and self-efficacy as this study was inconclusive. There will also need to be future research to support the positive relationship between WIDA ACCESS reading improvement and self-efficacy and to determine the relationship’s strength. This
study did not intend, and therefore was unable, to show any causation. It remains unclear whether a change in self-efficacy leads to a change in reading improvement or the other way around. A future study is needed to ascertain causation between these two variables.

The survey itself was a third limitation. The ClassMaps survey is well researched and respected as a measure of self-efficacy in elementary students, as Doll et al. (2009) found. This survey, however, modified the CLASSMaps survey for student clarity and understanding. The survey used here is the first iteration and would need additional testing to determine its validity and consistency. This survey also had a limitation in that it did not refer to specific reading tasks, as Bandura and And (1996) suggested would give the most accurate self-efficacy rating. Instead, this survey asked for responses of a more general nature, which may or may not be as accurate.

The final limitation arose from the accuracy of student responses. Students may have felt pressure to give certain responses on the survey. Some students asked for clarification of the questions more than seemed necessary to me. These questions combined with respondents watching me for my reaction upon completion, may indicate a feeling of pressure for the “correct” answers. They may have felt the need to impress the teacher/researcher, give similar answers to their peers, or felt internal pressure to rank themselves as “good” readers. A few students, who are less confident in general, may have rated themselves lower on the survey due to self-esteem issues. These are all data validity concerns that are hard to account for in a quantitative study.

Researching this topic in the future would necessitate changes in the research design to account for these concerns. Including more participants would allow for more generalizable conclusions and limit the influence of any single participant’s self-efficacy
scores or test results. Additionally, the researcher could conduct interviews with the participants and the participants’ classroom teachers to gain further understanding of why students may have given specific responses to the self-efficacy questions. Finally, the self-efficacy survey should be adjusted to include more specific reading tasks. This would give participants specific situations to respond to instead of more generalized questions. This would also improve the data, as it would help students understand just what the questions are asking by tangible examples of the task they are asked about.

Implications

The main implications of the current study are a need for more student self-reflection about academic reading, a renewed teacher focus on feedback regarding effort, and a need to document improvement towards reasonable goals for each student. Student self-reflection would allow students to think about the improvement that they are making as readers and to reassess and reset goals that are appropriate, challenging, and realistic for their current developmental path as a reader. Too many of the participants in the study showed a disconnection between their self-efficacy towards reading and their improvement towards grade level reading. Perhaps if the students were given time and examples of how to reflect on their own learning, their self-efficacy would fall in line to a level just above their current ability level which Pajares and Urban (2006) describe as ideal.

The need for appropriate teacher feedback is another implication of this study. One student in particular demonstrated the need for teacher feedback. This student responded that he or she was a medium reader because “I read chapter books that I love and in my level”. This is a self-aware reader that picks challenging but accessible books
and knows that he or she will have better success with books that he or she loves. This same student showed above mean improvement on both reading tests, but was a full standard deviation below the mean in self-efficacy. This student has experienced Phan’s (2012) mastery experiences without the generally expected increase in self-efficacy. Perhaps what this student needs, as Schunk (2003) found, is teacher feedback because the student appears to be unable to monitor and adjust his or her self-efficacy through personal experiences of success, such as great improvement on reading tests.

The final implication for the current study is the need to document improvement towards realistic goals for all students. In the context of the participants in the study, some of these students are on a multi-year path towards grade level reading. These students need to maintain a reasonable level of self-efficacy that will promote solid effort in their reading. Some of these students seem to be struggling with a level of high self-efficacy that may lead to complacency. Rivera and Waxman (2011) found that 82% of students were struggling academically by many measures, yet rated themselves as good at specific subjects. This was further complicated when twenty-nine percent of students couldn’t identify a reason to support their self-assessment.

This is similar to the current study for some participants. One participant in particular, number 18, scored in the first grade level on the NWEA MAP reading with little growth and scored in the developing stage on the WIDA ACCESS with average growth. This student is probably at least two to three years behind in his or her reading, and yet reported a self-efficacy rating of 28. To compare, the other students who scored a 28 on the survey each scored proficient or nearly so on the WIDA ACCESS. Student 18, with below grade level scores and average growth on these readings tests, would seem to
be a student who could benefit from incremental goal setting toward grade level reading as Cisco and Padron (2012) suggest. Incremental goal setting might allow student 18 to see that he or she has many steps to go to achieve grade level reading, but may also encouraged student 18 with everyday successes along the way. Hopefully, this student is ready to turn the corner as he or she pointed to effort as a problem when they wrote “for me reading is medium because I don’t know too much but if I try my best I will”. It is also important to remember that students can show improvement in ways other than standardized tests.

These implications for learning and teaching will be shared with the district in which the study was conducted. Additionally, these findings will be included in the Hamline library and may be presented at the MinneTESOL conference in Minnesota or presented at a Center of Excellence within the state. The teachers of the relevant grades, within the district, will be given a short synopsis of the findings, especially the need for accurate reading feedback for below grade level readers so that students will have the appropriate information to inform their self-efficacy. Also, district EL and curriculum leaders will be given copies of the findings of this study. Hopefully, this will enable these educational leaders to realize the importance of self-efficacy in the educational development of ELs. It may even lead the district to develop and research methods that can help teachers boost self-efficacy among fourth and fifth grade ELs whose reading development has plateaued.

Areas for Future Research

The intersection of ELs and reading self-efficacy is an area that could use more research generally. Over the course of this study, a few areas for future research became
more specifically apparent. One area for future research would be to study the effect of home or community culture on academic self-efficacy. In the context of the current study, it would be informative to see if there is a difference in self-efficacy and achievement based on gender within a specific language group. In a similar vein, research could be done studying the relationship between self-efficacy development and cultural norms in a specific community. This could be done through a case study of a few students from different backgrounds and tracking how their home-life has affected the development of their self-efficacy.

Another area for future research would be to study the effect of feedback on student self-efficacy going forward. The research on feedback and academic self-efficacy has come to different conclusions, none of which are specific to ELs. Schunk (2003) found feedback to be especially important for writing and Schunk and Swartz (1993) found that feedback led to higher self-efficacy more generally. At the same time McTigue et al. (2009) found that higher achieving students relied on feedback less and lower achieving students more as an influence on self-efficacy. It would be instructive to see how feedback affects ELs at different achievement levels so that teachers could adjust feedback in type and scope to the student’s individual need.

Conclusion

The current study began as my attempt to determine why some late elementary ELs seemed to make reading improvement towards, and sometimes beyond grade level, while other students, similar in many ways, seemed to stagnate in their reading improvement. Since beginning this work, I have moved to the middle school in the same district and see the effects of this stagnation first-hand in the classes these students must
take and the limitations those classes can place on students’ academic, social, and sometimes emotional futures. While researching possible explanations for reading stagnation, I was consistently drawn to self-efficacy as one possible explanation. The research history provided little information for my target population of late elementary ELs.

I had hoped, through my collection of test data and student responses, to see a positive relationship between student self-efficacy and improvement on reading measures. This would have affirmed for me that students who feel positive about their reading will do well and students who do well will feel positive. It seemed that it should be a reciprocal relationship. Interestingly, and contrary to much of the research, it seems that any relationship between self-efficacy and reading improvement for late-elementary ELs is inconsistent at best. While students overall did show a moderate positive correlation between self-efficacy and reading improvement on the reading portion of the WIDA ACCESS test, they showed a slightly negative correlation between self-efficacy and reading improvement on the NWEA MAP reading test.

The possible inconsistency of the relationship between self-efficacy and reading proficiency increases when all students are taken into account makes it difficult to generalize strategies for using self-efficacy considerations to improve teaching for this group of EL elementary students. On the individual student level, however, there is an important lesson to be learned from this research. The first lesson is that students might not have a strong understanding of how they are doing as readers. Without an understanding of how they are doing in their reading improvement some students seemed to develop false overconfidence that may underemphasize the need for hard work and
concentration. Other students exhibited a lack of confidence that may lead them to
giving up easily on tasks that with perseverance they could overcome. As a teacher, this
lesson has emphasized the need for constant and specific feedback. This will boost
student confidence when needed by highlighting successes and reign in overconfidence
by giving specific areas for improvement.

On a broader level, the uneven correlation that was found between reading self-
efficacy and reading improvement for elementary ELs may raise questions for the study
of teaching English Learners. Many previous researchers on self-efficacy and students
found a somewhat strong correlation between self-efficacy and learning in general and
reading specifically. What is different about the population in the study that led to a
positive correlation on one test and a negative on the other? The answer to this question
may help future educators identify students who are at risk for reading stagnation, design
curriculum that better meets their educational needs, and develop instructional practices
that help these students increase both their reading improvement and their reading self-
efficacy.
Appendix A

Self-efficacy Survey
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<th>Name ____________________________</th>
<th>Please circle the answer that describes you</th>
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</thead>
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<td></td>
<td>5</td>
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<tr>
<td>I can do my work well in reading.</td>
<td>Always</td>
</tr>
<tr>
<td>I can do as well as most other kids in reading.</td>
<td>Always</td>
</tr>
<tr>
<td>I can help other kids understand things in reading.</td>
<td>Always</td>
</tr>
<tr>
<td>I can do the hard work in reading.</td>
<td>Always</td>
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<tr>
<td>I can get good grades if I try hard in reading.</td>
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<tr>
<td>I can be a very good student in reading.</td>
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Circle your answer and give your reason

For me reading is easy medium hard, because ________________________________
Appendix B

CLASSMaps Believing In Me Survey Questions
Believing in Me

I can do my work correctly in this class.
I can do as well as most kids in this class.
I can help other kids understand the work in this class.
I can be a very good student in this class.
I can do the hard work in this class.
I can get good grades when I try hard in this class.
I know that I will learn what is taught in this class.
I expect to do very well when I work hard in this class.
Appendix C

Self-efficacy Responses
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Average 24.14 4.5 4.67 4.83 4.67 5 5

* Student number contains: identifying number-grade (4 or 5), Somali (S) or Hispanic (H), boy (B) or girl (G)
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