CAUSAL-COMPARATIVE STUDY OF READING SELF-EFFICACY OF SENIOR HIGH SCHOOL STUDENTS BASED ON ENGLISH COURSE PLACEMENT

by

Carrie Marie Deel

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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ABSTRACT

In addition to requisite knowledge and skills in the area of reading, self-efficacy is imperative for students' success in academic tasks. While a considerable amount of research has been conducted on self-efficacy, there is a dearth of research with high school students' reading self-efficacy. Moreover, there is virtually no research investigating the potential differences in reading self-efficacy for students enrolled in different kinds of senior English courses. This non-experimental quantitative causal-comparative study sought to examine whether there was a difference between the reading self-efficacy for male and female students enrolled in general education English classes and students enrolled in dual enrollment English classes. A convenience sample of 190 students in two school districts in southwest Virginia was administered the Self-Efficacy for Reading scale developed by Prat-Sala and Redford (2010). A two-way ANOVA was used to determine the differences in means scores for the two groups. There was a statistically significant difference in the reading self-efficacy based on course placement, with dual enrollment students reporting higher levels of self-efficacy than students enrolled in general education English classes. There was not a statistical significance in reading self-efficacy based on gender, nor was there a significant interaction between gender and course placement.

Keywords: self-efficacy, reading, English, dual enrollment, general education, gender

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Dedication

I dedicate this dissertation and the last three years of my life to my husband and children who mean more to me than anyone else in the world. They have stood by my side and allowed me to sacrifice precious time with them to pursue my dream of obtaining my doctorate. Not only have they given me the time and space I needed to complete my work, but they have also lovingly tolerated my shortcomings when the stress and sleepless nights started to take their toll. Without them and their support, this goal would never have been realized.

I also want to dedicate this dissertation to my parents, who instilled in me the value of hard work and perseverance from as far back as I can remember. I am in awe of them and their work ethic, and in everything I do, I aspire to be like them. They have also been my biggest cheerleaders, providing constant encouragement along the way and reminding me that it's okay to be stressed because there is a light at the end of the tunnel.

Above all, I would like to dedicate this to my Father in Heaven. Scripture tells us to "cast all your anxieties on him because he cares for you" (1 Peter 5:8, NIV). During my darkest times in this program, both educationally and personally, I could lean on the fact that God has a plan for me, and all I need to do is trust in him to bring it to fruition.

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Specifically, I would like to thank my committee members, Dr. Meredith Park, my dissertation chair, and Dr. Kurt Michael. Dr. Park, your dedication and encouragement have been a light to me as I have worked to finish my degree. I am grateful to you because you were always available. Your phone calls kept me on track at a time when it was easy for me to get distracted from my work. You also made yourself constantly available and encouraged me always to contact you if I needed anything. More than anything, though, I am thankful for your reassurance. Regardless of how stressed or anxious I felt during this time, you were always available to support me and remind me that my work would get finished, and that I would survive. It seemed that my time in your class was the most difficult it had been for me personally, but because of your calm, reassuring demeanor, I knew that, academically, everything would be okay, and I cannot thank you enough for that. Dr. Michael, your expectations and standards are appreciated. I appreciated your candor and toughness more than you know. At a time when expectations and instruction are often watered down, you remained steadfast, and I know that I am a better student and person because you challenged me. Thank you both for your support through this process.

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List of Abbreviations

Analysis of Variance (ANOVA)

Dual Enrollment (DE)

Grade Point Average (GPA)

Institutional Review Board (IRB)

Intelligence Quotient (IQ)

National Assessment for Educational Progress (NAEP)

Scholastic Aptitude Test (SAT)

Science, Technology, Engineering, and Mathematics (STEM)

Self-Efficacy for Reading (SER)

Socioeconomic Status (SES)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this study was to examine the difference between reading self-efficacy of male and female senior high school students enrolled in general education English classes and male and female senior high school students enrolled in dual enrollment English classes. Chapter One will look at the background, purpose, and significance of the study. It will also clearly articulate the research question and relevant definitions.

Background

Despite small gains in students' performance on national reading assessments such as the National Assessment for Educational Progress (NAEP), a significant percentage of students continue to read below a basic level (McFarland et al., 2018). The U.S. Department of Education's annual report, *The Condition of Education,* shows that in 2017, a staggering 32% of fourth-grade students read below the basic level, and the statistics are no better for eighth- and 12th-grade students, with 24% and 28% of students reading below the basic level, respectively (McFarland et al., 2018). These statistics are alarming given the abundant research highlighting the importance of literacy skills to students' success in the classroom and beyond. Additionally, research has consistently demonstrated that success in the classroom hinges on students' self-efficacy, which Bandura (1986) defines as an individual's belief in his ability to successfully complete a task.

The importance of reading proficiency cannot be overstated. In large part, academic success is predicated on a student's ability to read, but from the very first day students enter formal schooling, there are disparities among students (Hickman, Bartholomew, Mathwig, & Heinrich, 2008). Research suggests there is an alarming gender gap in students' reading ability

and proficiency, with girls outperforming boys on many reading-related tasks and assessments (Brozo et al., 2014; Cobb-Clark & Moschion, 2017; Denton et al., 2015; Kingdon, Serbin, & Stack, 2017; Sigmundsson, Eriksen, Ofteland, & Haga, 2018). While studies intimate that gender differences in reading exist at the onset of elementary school (Cobb-Clark & Moschion, 2017; Kingdon et al., 2017; Sigmundsson et al., 2018), some research found these disparities to be small and not statistically significant (Kingdon et al., 2017). However, these disparities tend to widen substantially as students advance through their education, especially as students transition to high school (Kingdon et al., 2017; Sigmundsson et al., 2018). When examining the underlying causes of the gender gap in reading, research has been inconclusive. Factors such as home environment, parental involvement, and teacher bias, among others, have all been found to contribute to this gap between male and female readers.

Disparities also exist in foundational skills such as "comprehension of oral language . . . vocabulary or the students' awareness of the phonological and sound structure of spoken language" (Pfost, Hattie, Dorfler, & Artelt, 2014, p. 204). Early struggles in reading can lead to deficient decoding and comprehension skills (Snow & Matthews, 2016; Stanovich, 2009), which in turn, can lead to reduced amounts of practice and unsatisfying reading experiences that can negatively impact students' later academic performance (Clemens, Ragan, & Widales-Benitez, 2016; Cunningham & Stanovich, 1998; Snow & Matthews, 2016; Stanovich, 2009). Consequently, struggling students lack exposure to increasingly sophisticated texts that include the high-level vocabulary and more complex sentence structures they will encounter in academic texts as they move through their education. Conversely, more adept readers tend to find reading to be an enjoyable, rewarding experience and as a result, seek out additional reading experiences, thereby becoming more proficient readers through the increased exposure to text (Pfost et al.,

2014; Stanovich, 2009). This disparity ultimately produces an ever-widening gap between struggling and proficient readers (Benner, Nelson, Ralston, & Mooney, 2010; Fiester, 2013; Stanovich, 2009), a gap Stanovich (2009) calls The Matthew Effect.

The Matthew Effect alludes to Matthew 25:29 (New International Version): "For whoever has will be given more, and they will have an abundance. Whoever does not have, even what they have will be taken from them." As it pertains to reading, the gap between struggling and proficient readers may continue to widen as students advance through school, especially if early reading difficulties are not addressed, specifically by the end of third grade (Ari, 2011; Chall, 1996; Clemens et al., 2016; Cunningham & Stanovich, 1998; Melekoglu, 2011; Moats, 2001; Snow & Matthews, 2016), as fourth grade represents a shift in reading instruction. Until the end of third grade, instruction is focused on learning to read; beginning in fourth grade, reading instruction shifts to reading to learn. Consequently, fourth-grade students who continue to struggle with basic skills, such as phonological awareness and decoding, will likely face persistent, long-term difficulties as instruction becomes concentrated on content-based reading. In fact, approximately two thirds of students who experience reading difficulties early in their formal education continue to struggle as they move through high school (Benner et al., 2010).

Because the majority of learning is done through written texts, reading is a critical task in education, a task that cannot be dissociated from learning, regardless of academic discipline (Biancarosa & Snow, 2006; Cooper, Moore, Powers, Cleveland, & Greenberg, 2014; Rabiner, Godwin, & Dodge, 2016; Villalón, Mateos, & Cuevas, 2015). As students progress through school, reading becomes more complex and embedded in the subject matter. Students' success in subject areas not commonly associated with reading, such as math, is still predicated on their ability to read (Cooper et al., 2014; Rabiner et al., 2016). In the language arts domain,

expository texts that generally include more sophisticated vocabulary and sentence structures replace the narrative format so common in elementary and middle school (Biancarosa & Snow, 2006). These early deficits are exacerbated by the fact that adolescent learners are not as motivated as younger students to become better readers (Biancarosa & Snow, 2006; Lesnick, Goerge, Smithgall, & Gwynn, 2010; Wigfield & Guthrie, 1997). Older struggling readers tend to avoid reading tasks, a decision that ultimately causes them to fall further and further behind their more abled peers.

As students engage in reading tasks, they experience either satisfaction or frustration, both of which can impact their self-efficacy toward reading. According to Bandura (1986), self-efficacy is the belief in one's capability to complete a given task. While there are four sources of self-efficacy, the most powerful source and the one most frequently associated with efficacy is mastery experience (Bandura, 1991). Efficacy from mastery experience comes from an individual's previous successes or failures on tasks. In reading, students' success and accomplishment will enhance their self-efficacy. These positive experiences will likely lead to increased motivation and desire to participate in future reading experiences. On the other hand, when students experience frustration and failure with reading, their self-efficacy decreases. Ultimately, students with a high sense of self-efficacy will be more likely to select challenging tasks and persevere in the face of obstacles, while students with low self-efficacy will choose easier tasks and will be more likely to give up when confronted with challenges (Bandura, 1986).

Students' literacy skills are instrumental to their academic success, with deficient literacy skills cited as one of the primary reasons for student dropout (Biancarosa & Snow, 2006; Christle, Jolivette, & Nelson, 2007; Lansford, Dodge, Pettit, & Bates, 2016; Reschly, 2010). In general, struggling readers lack the cognitive tools necessary to access and keep up with the high

school curriculum. Moreover, previous failures may serve as catalysts to students' low self-efficacy. As a result, some students choose to leave school before earning a diploma (Fan & Wolters, 2014), a decision that affects not only the student, but society as well. In general, students who elect to drop out of high school are more likely to be unemployed (Baum, Ma, & Payea, 2013; Christle et al., 2007; Clemens et al., 2016; Cratty, 2012; Freeman & Simonsen, 2015; McFarland et al., 2017; Messacar & Oreopoulos, 2013), earn lower wages when they do find employment (Baker, 2012; Christle et al., 2007; Fan & Wolters, 2014; Hernandez, 2011), are more likely to be incarcerated (Baker, 2012; Christle et al., 2007; Fan & Wolters, 2014; Freeman & Simonsen, 2015), and are more likely to depend on social services, thereby straining society's available resources (Baum et al., 2013; Christenson & Thurlow, 2004; Christle et al., 2007; Fan & Wolters, 2014; Freeman & Simonsen, 2015). However, studies have demonstrated that students who enroll in dual enrollment classes while in high school are more likely to graduate from high school and pursue a college degree (An, 2013). Once in college, they are more likely to have a higher grade point average (GPA) and earn a college degree (Allen & Dadgar, 2012; An, 2013; Jones, 2017; Kanny, 2015).

One area worth investigating is whether or not students who are enrolled in different kinds of English classes in high school demonstrate different levels of self-efficacy, specifically students enrolled in general education English classes and students enrolled in dual enrollment English classes. Pierce (2017) defines dual enrollment as courses through which students can simultaneously earn high school and college credit. In many cases, this college credit is offered at a discounted or even free rate, which is critical for low-income families that might otherwise struggle with financing their child's postsecondary education (Jones, 2017). Moreover, research has found that students enrolled in dual enrollment coursework tend to have a higher GPA

(Jones, 2017; Kanny, 2015), are more likely to graduate from high school (An, 2013), are better prepared for the rigors of college coursework (An, 2013; Grubb, Scott, & Good, 2017; Jones, 2017), and are more likely to leave college with a degree (An, 2013; Jones, 2017; Kanny, 2015). In fact, An (2013) contends that participation in dual enrollment classes has an even more important influence on college graduation than high school rank and test scores.

While much research has examined self-efficacy, little research has investigated the potential differences in students' reading self-efficacy based on course placement. Research to date suggests a strong relationship between students' self-efficacy and their academic achievement. In fact, a key indicator of high school dropout is students' English self-efficacy (Fan & Wolters, 2014). Similarly, research also suggests that students who are enrolled in dual enrollment courses tend to have better academic outcomes (Allen & Dadgar, 2012; An, 2013; Grubb et al., 2017; Jones, 2017; Kanny, 2015). However, little research has investigated whether or not there is a difference in the self-efficacy of students enrolled in dual enrollment English courses compared to those who are enrolled in general education English classes. This study attempted to fill that gap by examining the reading self-efficacy for male and female students enrolled in a general education English and male and female students enrolled in an advanced dual enrollment English course.

Problem Statement

In general, students who struggle with reading in the classroom develop low self-efficacy for this task (Boakye, 2015), causing them to become discouraged and disengaged from their education (Guthrie et al., 2007; Stanovich, 2009). These difficulties are consequential because academic success or failure is, in large part, dependent upon the student's self-efficacy. Efficacious students are more inclined to set goals and actively monitor their progress toward

those goals; they are also more likely to expend greater effort in endeavors for which they have high self-efficacy and are more likely to persist when confronted with obstacles or failures (Bandura, 2001). Conversely, students with low self-efficacy are easily discouraged by obstacles and failures and are more likely to experience apprehension and anxiety in situations for which they have low efficacy (Sanders-Reio, Alexander, Reio, & Newman, 2014).

While self-efficacy research is abundant, there is limited research on reading self-efficacy among high school students. Much of the previous self-efficacy research has focused on elementary and middle school students, primarily in Grades 4–8 (Britner & Pajares, 2006; Butz & Usher, 2015; Guthrie et al., 2007; Joët, Usher, & Bressoux, 2011; Lesnick et al., 2010; Liew, McTigue, Barrois, & Hughes, 2008; Nelson & Manset-Williamson, 2006; Shell, Colvin, & Bruning, 1995) and in the area of math (Butz & Usher, 2015; Cooper et al., 2014; Parker, Marsh, Ciarrochi, Marshall, & Abduljabber, 2014; Rabiner et al., 2016; Usher, Ford, Lie, & Weidner, 2018; Usher & Pajares, 2008, 2009) and science (Britner & Pajares, 2006; Jansen, Scherer, & Schroeders, 2015; Usher et al., 2018).

A recent study conducted by Boakye (2015) explored the connection between reading self-efficacy and reading proficiency of first-year college students at high risk of academic failure and students at low risk of academic failure. Her results indicated that students in the high-risk group reported lower levels of self-efficacy as compared to students in the low-risk group. Boakye (2015) concluded that students' self-efficacy was aligned with their reading proficiency. Students who had higher levels of self-efficacy were more proficient readers compared to students who struggled with reading and were less efficacious.

An additional study by Cantrell et al. (2013) provides a foundation for this study's research question, as it examined the differences in self-efficacy and sources of self-efficacy for

first-year college students enrolled in a developmental reading course compared to first-year college students enrolled in a credit-bearing course. Researchers found that students in the developmental reading classes tended to have lower reading self-efficacy than their peers who were enrolled in the credit-bearing course. This result leads one to consider whether these differences in self-efficacy may also be present in high school students enrolled in different English courses as well, specifically for students enrolled in general education classes compared to students enrolled in dual enrollment classes. The problem is that the majority of previous research regarding reading self-efficacy has utilized elementary and middle school students, leaving a gap in the literature concerning the reading self-efficacy of high school students. Additionally, there is virtually no research regarding the potential differences in reading self-efficacy of high school students enrolled in different types of English courses. Considering the importance of self-efficacy to students' academic performance, in addition to the potential advantages of taking dual enrollment courses, it is important to examine whether there is a difference in student's self-efficacy depending on course placement.

Purpose Statement

The purpose of this non-experimental quantitative causal-comparative research study was to determine if there is a difference between the reading self-efficacy of male and female students enrolled in a general education English course compared to male and female students enrolled in a dual enrollment English course. There were two independent variables for this study: the type of senior English class in which students are enrolled, either general education English class or dual enrollment English class, and gender. General education classes are those in which students are instructed with their peers, regardless of developmental or performance level (Doyle & Giangreco, 2013), while dual enrollment courses are those for which students can

simultaneously earn high school and college credit (Pierce, 2017). Gender refers to the biological sex of each student. The dependent variable was students' reading self-efficacy, as assessed through the Self-Efficacy for Reading (SER) Scale developed by Prat-Sala and Redford (2010). Self-efficacy is defined as students' beliefs in their ability to successfully complete a task (Bandura, 1986), specifically reading tasks for the purpose of this study. Participants were senior students from two rural school districts in southwest Virginia. They were enrolled in either a general education English class or a dual enrollment English class during the spring semester of their senior year.

Significance of the Study

This study is significant because in 2018, the U.S. Department of Education released its report, *The Condition of Education 2018*, which indicates a steady decline in the high school dropout rate, from 21% in 2011 to 16% in 2013 (McFarland et al., 2018). Despite this decline, the high school dropout rate is still a critical issue that warrants continued attention (Freeman & Simonsen, 2015). Certainly, the consequences of dropping out of high school are extreme and far-reaching, and they are well documented in the literature (Baker, 2012; Baum et al., 2013; Christenson & Thurlow, 2004; Christle et al., 2007; Clemens et al., 2016; Cratty, 2012; Fan & Wolters, 2014; Freeman & Simonsen, 2015; Hernandez, 2011; McFarland et al., 2017; Messacar & Oreopoulos, 2013). In general, students who drop out of high school will have fewer career and employment opportunities (Baum et al., 2013; Christle et al., 2007; Clemens et al., 2016; Cratty, 2012; Freeman & Simonsen, 2015; McFarland et al., 2017), and if they are able to find work, it will likely be a position that offers few opportunities for advancement (Baker, 2012; Christle et al., 2007; Fan & Wolters, 2014; Hernandez, 2012). This, naturally, affects their income and socioeconomic status, with high school dropouts earning approximately 22% less

annually than those who earned a diploma (McFarland et al., 2017). Dropping out of high school has negative consequences for society as well. Christenson and Thurlow (2004) estimated the social cost of dropping out results is billions of dollars in losses. Because of their low earning power, high school dropouts are more likely to rely on welfare (Baum et al., 2013; Christenson & Thurlow, 2004; Christle et al., 2007; Fan & Wolters, 2014; Freeman & Simonsen, 2015). They are also more likely to participate in criminal or deviant behavior; consequently, many are incarcerated even as juveniles (Baker, 2012; Christle et al., 2007; Fan & Wolters, 2014; Freeman & Simonsen, 2015). Clearly, dropping out of high school has personal ramifications and carries a large social cost as well.

Academically, one of the primary reasons for dropping out is a lack of necessary literacy skills (Biancarosa & Snow, 2006; Christle et al., 2007; Lansford et al., 2016; Reschly, 2010). Although the percentage of students reading proficiently has gradually increased over the last two decades, students in Grades 4, 8, and 12 continue to read below a basic level: 32%, 24%, and 28%, respectively (McFarland et al., 2018). Consequently, it is imperative that additional research be conducted to investigate students' continuing deficits in tasks such as reading. One area to examine is self-efficacy because, in addition to requisite skills and knowledge, self-efficacy plays a significant role in students' success in the classroom (Bandura, 1986; Boakye, 2015; Fenning & May, 2013; Gonzalez-DeHass & Willems, 2012; Honicke & Broadbent, 2016; Rabiner et al., 2016; Schunk & Zimmerman, 2007). In fact, students' beliefs about what they can accomplish can be more important than the actual skills they possess.

An understanding of how self-efficacy impacts students' literacy success will help inform classroom practices to increase students' academic performance and reduce high school dropout rates. Subsequently, a decrease in the dropout rate can serve to improve students' lives past high

school, in addition to minimizing the toll on society that often results from high school dropouts. Examining students' English course enrollment and the self-efficacy of those students could also inform policy to ensure a greater number of students graduate high school prepared for the rigors of college.

Research Questions

The research questions for this study were as follows:

RQ1: Is there a difference between the reading self-efficacy of students who are enrolled in general education English classes and students enrolled in dual enrollment English classes?

RQ2: Is there a difference between the reading self-efficacy of male and female students enrolled in English classes?

RQ3: Is there an interaction between the reading self-efficacy of male and female students who are enrolled in general education English classes and male and female students enrolled in dual enrollment English classes?

Definitions

Terms pertinent to this qualitative study are listed below:

1. *Dual Enrollment*—courses in which high school students can simultaneously earn high school and college credit (Pierce, 2017)
2. *Fluency*—a reader's ability to quickly and accurately recognize a large number of words (Paige, 2011)
3. *General Education English Class*—classes where students are educated with same-age peers, regardless of developmental or performance level (Doyle & Giangreco, 2013).
4. *Mastery Experiences*—source of efficacy that comes from an individual's past accomplishments or failures (Bandura, 1991)

5. *Matthew Effect*—a model of reading that theorizes that the gap between struggling and proficient readers widens over time (Stanovich, 2009)
6. *Physiological Responses*—physical or emotional sensations an individual experiences when completing a task (Bandura, 1991)
7. *Self-efficacy*—the belief an individual has regarding his or her ability to perform a task successfully (Bandura, 1986)
8. *Social Persuasions*—source of efficacy that comes in the form of feedback and judgments from those people who are significant to the individual (Bandura, 1991)
9. *Stereotype Threat*—perceived threat of being judged by a stereotype, treated according to a stereotype, or conforming to a negative stereotype (Pansu et al., 2016; Steele, 1997)
10. *Vicarious Experiences*—source of efficacy that comes from watching others perform a similar task (Bandura, 1991)

CHAPTER TWO: LITERATURE REVIEW

Overview

This study sought to determine whether there was a difference between the reading self-efficacy of male and female high school students enrolled in general education English classes and male and female high school students enrolled in dual enrollment English classes. Chapter Two will provide a discussion of the stages of reading development, automatic information processing of reading theory, and self-efficacy as the underlying theories. A literature review and summary will follow, providing an in-depth overview of reading, self-efficacy, and dual enrollment.

Theoretical Framework

Chall's Stages of Reading

In order to understand students' successes or failures with reading acquisition, knowing how students acquire the complex literacy skills that enable them to become proficient readers is critical. Chall (1996) maintains that as children learn to read, there are six stages through which they proceed, each of which is marked by significant qualitative characteristics and masteries. Stage 0, the Prereading Stage, occurs from birth to age 6 prior to when children begin their formal education where reading instruction is a primary focus in literate cultures. According to Chall, children in literate cultures "accumulate a fund of knowledge" about language, including letters of the alphabet and concepts about print (p. 13). Because of their previous experiences of being read to, children demonstrate the ability to hold a book the correct way and proceed through the story in the left-to-right and top-to-bottom print arrangement predominant in the English language. At this stage, children also participate in "pretend reading" of books that have previously been read to them and can retell a story based on pictures that accompany the text

(Chall, 1996). Acquisition of knowledge and skills at the Prereading Stage is critical to students' success in first grade (Chall, 1996).

Stage 1, Initial Reading or Decoding Stage, generally coincides with 6- and 7-year-old children and encompasses Grade 1 and the beginning of Grade 2. Children in this stage typically begin to develop an understanding of the relationship between words and sounds and between printed and spoken words. Students acquire the ability to sound out one-syllable words, which enables them to read simple texts as they work to develop a list of sight words (Chall, 1996). At this stage, a child's reading ability tends to be significantly lower than their ability to understand spoken language, so providing students with direct instruction in letter-sound relationships, along with ample opportunity to practice their new skills, is imperative.

Stage 2, Confirmation and Fluency, largely encompasses Grades 2 and 3 and is marked by students' ability to read simple stories with increasing fluency. Rather than learning new skills and information, students are immersed in familiar texts as a means of developing proficiency with high-frequency sight words and consolidating the skills necessary for comprehension, such as decoding, sight vocabulary, and meaning context (Chall, 1996). At this stage, students who perform "significantly below the norms on achievement tests" (Chall, 1996, p. 19) may continue to struggle with reading, especially if considerable remediation is not offered to help them master these foundational skills. Stage 3, Reading for Learning the New, marks a critical transition from learning to read to reading to learn (Chall, 1996; Melekoglu, 2011). Students in Grades 4–8 are tasked, often for the first time, with reading as a means of gaining new knowledge and ideas. This transition poses significant challenges because students are limited in their background knowledge and vocabulary (Snow & Matthews, 2016), and reading materials tend to include more complex sentence structures and more abstract, "bookish"

vocabulary (Chall, 1996, p. 21). Because of this increased complexity, readings often present material from one viewpoint. As children progress through Stage 3, reading becomes more systematic, with readers learning the importance of text features and discovering how those features might assist them in finding information in a paragraph, chapter, or book (Chall, 1996).

Stage 4, Multiple Viewpoints, generally occurs when students move through high school and encounter lengthier and more complex passages (Chall, 1996). Because of this increased text complexity, students must have previously mastered the foundational literacy skills; failure to do so will result in their inability to read and fully comprehend these academic texts. During Stage 4, students acquire the ability to read a wide range of texts, including expository and narrative, and are able to process and understand multiple viewpoints. As students become more accomplished readers, their reading comprehension skills surpass their listening skills. Struggling readers, on the other hand, continue to have better listening skills (Chall, 1996). The final stage, Construction and Reconstruction, encompasses college and beyond. During this stage, the act of reading is often executed when it serves the needs and purposes of the individual, and students have the ability to select portions of a text that will ultimately meet their individual needs. More importantly, students have the ability to synthesize their own knowledge with that of others to develop new knowledge and ideas (Chall, 1996). Because of students' more extensive background knowledge, reading is fast and efficient at this stage, much more so than listening.

Automaticity Theory

Indeed, reading is a complex task, comprised of multitudinous skills. At each stage outlined by Chall (1996), students must develop automaticity in order to master the skills at that stage and move on to the next. The automatic information processing theory in reading, first

proposed by LaBerge and Samuels (1974), is one of the most widely quoted reading theories of all time and helps illuminate the differences between beginning readers and fluent readers (Samuels, 1994). According to this theory, the brain acts much like a computer, taking in information in the form of input, processing that information, and then producing output. The way that information is processed will change over time as students develop word knowledge and automaticity.

Attention is one of two essential components to reading development. From an educational perspective, it is important to understand that attention is comprised of both external and internal components. External attention is that which is most easily observed and recognized (Samuels, 1994). For example, teachers may observe a student who appears to be paying attention. That appearance may take the form of orienting behavior, which consists of directing "one's sensory organs (such as eyes and ears) in such a way as to maximize information input" (Samuels, 1994, p. 1128). According to Samuels (1994), these external actions are often an indication that internal information processing is occurring. The internal characteristics of attention, on the other hand, are more difficult to describe and identify. Internal characteristics consist of three components: 1) alertness, which is actively coming into contact with different sources of information; 2) selectivity, which consists of selecting the most appropriate and important information out of abundant and competing stimuli; and 3) limited capacity, which is the limited amount of attention available for processing information at any one time (Samuels, 1994). Rabiner et al. (2016) argued students' ability to pay attention in the classroom is paramount to academic success. Students who are unable to pay attention will not gain the knowledge and skills provided through direct classroom instruction. In fact, early attention

difficulties in the classroom can negatively impact high school graduation rates, regardless of intelligence quotient (IQ) or socioeconomic status (SES; Rabiner et al., 2016).

In addition to attention, memory is also critical to the process of reading acquisition. There are two kinds of memory: short-term and long-term memory. One of the primary limitations with short-term memory is its finite capacity to store information. Consequently, students must work to move this information from short-term to long-term memory, the latter of which is limitless. Students' ability or inability to transfer critical reading skills to long-term memory will impact their reading and comprehension of text (Samuels & Flor, 1997).

When students are first learning to read, they must pay an inordinate amount of attention to each new skill, and according to LaBerge and Samuels (1974), two of the most critical criteria for reading proficiency are accuracy and automaticity. In order to become proficient readers, students must be able to accurately and automatically activate several different processes. At the beginning stages of reading acquisition, it is imperative that students pay close attention to the distinguishing features of letters before moving to the more complex task of decoding and developing a sight-word vocabulary. As a result, beginning readers tend to read in a slow, laborious manner (Stanovich, 2009). These early difficulties can have long-term impacts as well. When students struggle with fundamental reading skills, such as letter identification, phonological awareness, or the ability to decode words automatically, they are unable to move beyond those skills and focus on content and comprehension (Clemens et al., 2016). There is an urgent need then for students to develop automaticity in order to become more fluent readers, which is essential to reading success (Clemens et al., 2016; Cunningham & Stanovich, 1998; Kuhn & Stahl, 2003; Paige, 2011; Rasinski et al., 2016; Samuels, 1994; Stanovich, 2009). According to Paige (2011), "fluent reading of text is highly dependent upon the reader's ability

to quickly recognize a large number of words that have been learned to the point that cognitive retrieval is automatic" (p. 396). Kuhn and Stahl (2003) extended this assertion in saying that "without such automatic processing, students will continue to expend a disproportionately large percentage of their attention on decoding, which in turn leaves them with an inadequate amount for comprehension" (p. 4). Notwithstanding the importance of developing these skills early on, many students in the middle and secondary grades continue to struggle with fluency (Rasinski et al., 2016). These sustained difficulties result in frustrating, unrewarding reading experiences that are avoided or simply tolerated (Cunningham & Stanovich, 1998). Fluent readers, on the other hand, tend to read quickly and accurately (Samuels, 1994; Stanovich, 2009).

Despite the long-standing popularity of LaBerge and Samuels' (1974) automatic information processing theory of reading, more current research suggests that accuracy and automaticity are "necessary but not sufficient conditions for fluency" (Kuhn & Stahl, 2003, p. 4). There is a significant connection between reading with expression and becoming a fluent reader, a connection that supports comprehension (Rasinski et al., 2016; Schrauben, 2010). Prosodic reading consists of six distinct features: 1) pitch or intonation, 2) stress or loudness, 3) length of phrases, 4) appropriateness of phrases, 5) pausal intrusions, and 6) final phrase lengthening (Dowhower, 1991). Ultimately, when students can read quickly and with expression, they will be able to better comprehend the text, resulting in a positive reading experience.

Social Cognitive Theory

According to Albert Bandura (1986), social cognitive theory posits that individuals have the ability to exercise control over their thoughts and actions, which is a distinctly human quality. Triadic reciprocal causation provides the foundation for this theory and consists of three key influences: personal, behavioral, and environmental (Bandura, 1986). Through these

influences, individuals interact with their environment, as well as internal and external sources, to become self-regulating agents, and people use these same influences to make judgments about their perceived successes and failures. Gonzalez-DeHass and Willems (2012) maintained that the interaction among the three influences also plays a key role in learning and motivation. This assertion is a stark contrast to previous learning theories, such as behaviorism, which suggests that individuals are more passive in their learning. In behaviorism, individuals primarily respond to external stimuli, which does not allow for choice. Bandura (2001) argued instead that individuals must interact with their environments. This interaction allows them to analyze events and the information from these events in order to consider their capabilities to act on the environment. Based on their analysis, people regulate their behavior as they attempt to find success. In essence, people are "agents of experiences rather than simply undergoers of experience" (Bandura, 2001, p. 4).

Self-Efficacy. Self-efficacy, a central component of social cognitive theory, is the belief in one's ability to successfully complete a task (Bandura, 1986), and individuals' efficacy beliefs will affect a number of different aspects, including the tasks in which people choose to participate, how much effort to exert in the process, how long they will persevere in the face of difficulties or failures, and whether or not those challenges will be viewed as encouraging or discouraging (Bandura, 2001). According to Pajares (2005), self-efficacy "is not so much about learning how to succeed as it is about learning how to persevere when one does not succeed" (p. 345). Bandura (1991) maintained there are four sources of self-efficacy: mastery experiences, vicarious experiences, social persuasions, and physiological states.

Mastery experiences. Mastery experiences, those most frequently associated with efficacy and the most powerful source of efficacy, come from an individual's past

accomplishments or failures (Bandura, 1991). When people experience success, their efficacy will generally increase, and they will be more likely to view future, similar experiences as attainable. Bandura (1991) maintained that people will become more efficacious when they ascribe their successes to their own effort and ability rather than outside factors. This self-confidence helps individuals retain a high sense of efficacy even in the face of obstacles or failure because they view mistakes as part of the learning process and, thus, are not discouraged by them. An important qualification, however, is that individual effort and task difficulty are integral in the development of self-efficacy. Individuals who must work hard to achieve mastery will have higher efficacy than those who master relatively easy tasks (Bandura, 1991). In fact, people who achieve mastery without much difficulty are more likely to set less challenging goals and be more content with mediocrity. Repeated success on challenging tasks, therefore, is the only way to develop a firm sense of efficacy.

In the same way, when people experience failure, they may doubt future success on similar tasks and will be more likely to give up in the face of obstacles. This behavior can occur as a result of one's mindset, specifically if he or she views ability as a more or less inherent quality (Bandura, 1991). These individuals deem failure as a personal deficiency, which can be threatening to their efficacy. They may eventually choose tasks and activities that will minimize failure, partly because exerting a high amount of effort appears to be synonymous with low ability (Bandura, 1991). Repeated failures will, over time, serve to diminish people's self-efficacy and their beliefs regarding the amount of personal control they have on their environment. In the classroom, a low sense of self-efficacy will ultimately result in students becoming less engaged in academic tasks and coursework, which "adversely affect[s] students' academic trajectory" (Rabiner et al., 2016, p. 251).

Vicarious experiences. The second source of efficacy comes from vicarious experiences, which consist of watching others perform similar tasks. These experiences are especially powerful when those other individuals are peers. While adults can serve as effective models for students, children best develop self-efficacy by watching others who are similar to themselves (Schunk & Zimmerman, 2007). For example, a struggling reader will be more likely to engage in reading and believe in his potential for success if he sees another classmate achieving success in a reading-related task. This outcome would be less likely if he watched a competent adult or teacher successfully read a text. While vicarious experiences can enhance students' self-efficacy, they can also diminish self-efficacy if students see a peer perform poorly on a task (Schunk & Zimmerman, 2007). When students see a classmate struggling to read a textbook passage, they will be more likely to anticipate their own failure on that task should they choose to participate.

Social persuasions. The third source of self-efficacy is social persuasions, which come in the form of feedback and judgments from those who are significant to the individual, such as a teacher or a parent. If a teacher praises a student's work, that recognition can serve to increase the student's self-efficacy. Similarly, a teacher expressing his faith in students' academic success and potential can also increase students' self-efficacy. An important caveat, however, is that actual performance must validate feedback in order to maintain a high level of self-efficacy (Schunk & Zimmerman, 2007). When positive reinforcements are not substantiated by successful performance, a student's self-efficacy for the given task will not be sustained. While research has not demonstrated social persuasions to be as powerful as mastery experiences and vicarious experiences, a study of 31 fourth-grade students did find that teacher and parent feedback were key influences in students' perceived self-efficacy (Guthrie et al., 2007).

Findings such as these are critical for educators, as they have ample opportunity to positively or negatively impact students' sense of efficacy. Gonzalez-DeHass and Willems (2012) maintained that teachers should emphasize the importance of students' hard work and ability as the sources of their success, whereas lack of effort is the reason for their failure. An emphasis on students' areas of strength and progress is also important since these areas are more likely to enhance self-efficacy. Focusing on these key aspects can serve to diminish a fixed mindset and encourage students to perceive ability as being dynamic rather than static.

Physiological states. The final source of self-efficacy is physiological states or emotional arousal, which include the physical or emotional sensations individuals experience while performing a task. Increased heart rate, sweaty palms, or anxiety suggests to students that they do not have the requisite skills to successfully complete a task, thereby decreasing their self-efficacy. In the same way, a decrease in anxiety or the physiological responses to anxiety could indicate aptitude and enhance students' self-efficacy. In addition to affecting the way individuals feel when attempting certain tasks, their level of self-efficacy can also affect the tasks in which they choose to participate.

Related Literature

Learning to read is a critical skill students must master very early in their formal education. Because of its complex nature, students must develop proficiency in foundational skills, such as phonemic awareness and alphabet knowledge, before they can arrive at more sophisticated outcomes like comprehension (Chall, 1996; Clemens et al., 2016; LaBerge & Samuels, 1974; Samuels, 1994). Previous research demonstrates that failure to read on grade level by the end of third grade can have long-term, negative consequences like poor academic performance (Ari, 2011; Clemens et al., 2016; Cunningham & Stanovich, 1998; Melekoglu,

2011; Moats, 2001; Snow & Matthews, 2016) and even high school dropout (Cratty, 2012; Reschly, 2010). Part of the reason for these academic outcomes can be attributed to students' self-efficacy, as students' early difficulties and failures with reading can lead to fewer mastery experiences and social persuasions, in addition to an increase in physiological effects, such as anxiety and academic apprehension. However, the majority of research regarding students' self-efficacy has been completed with elementary or middle school students (Britner & Pajares, 2006; Butz & Usher, 2015; Guthrie et al., 2007; Joët et al., 2011; Lesnick et al., 2010; Liew et al., 2008; Nelson & Manset-Williamson, 2006; Shell et al., 1995) and in subject areas like math (Butz & Usher, 2015; Cooper et al., 2014; Parker et al., 2014; Rabiner et al., 2016; Usher et al., 2018; Usher & Pajares, 2008, 2009) and science (Britner & Pajares, 2006; Jansen et al., 2015; Usher et al., 2018). However, fewer studies have examined self-efficacy in secondary students, but this area is crucial because students' ability to complete high school and earn a diploma has considerable implications for their own future, as well as society's.

An important consideration regarding students' self-efficacy is that of course placement, specifically dual enrollment courses. Research supports the claim that participating in dual enrollment classes leads to better academic outcomes such as higher grade point average (GPA), increased enrollment in postsecondary education, and increased rates of college graduation (Allen & Dadgar, 2012; An, 2013; Fenning & May, 2013; Grubb et al., 2017; Honicke & Broadbent, 2016). This claim leads one to question whether students' reading self-efficacy is related to course placement, yet there is no research investigating this relationship. Research findings regarding this relationship can have important educational implications for students' academic careers and performance.

Reading

Students' academic success in multiple domains is related to their ability to complete one task: reading. When students can read well, they are more likely to meet with successful academic outcomes in a number of different subject areas (Biancarosa & Snow, 2006), including unlikely subjects like math (Cooper et al., 2014; Rabiner et al., 2016). Conversely, if students struggle with reading, they are more likely to experience failure and the consequences associated with it, such as frustration, anxiety, and disengagement with school. In fact, research cites deficient literacy skills as one of the primary reasons students elect to drop out of high school before earning a diploma (Biancarosa & Snow, 2006).

In general, there are two types of literacy skills critical to students' reading success: constrained and unconstrained (Paris, 2005; Snow & Matthews, 2016; Stahl, 2011). Constrained skills consist of such things as print awareness, phonemic awareness, and alphabet knowledge (Paris, 2005; Snow & Matthews, 2016; Stahl, 2011). These are skills students can completely master and thus, there is a ceiling effect. For example, students either know or do not know the 26 letters of the alphabet. Once they master these 26 letters, they can do no better and have reached the ceiling. Unconstrained skills, on the other hand, are equally, if not more, important to students' reading success. They are increasingly complex and are developed over an individual's lifetime (Paris, 2005; Snow & Matthews, 2016; Stahl, 2011). Unconstrained skills include background knowledge, vocabulary, and critical thinking and do not have a ceiling effect.

Students' ability to acquire foundational literacy concepts, such as phonological awareness, phonics, fluency, vocabulary, and comprehension strategies can, in large part, determine their later academic success (Clemens et al., 2016; Cunningham & Stanovich, 1998;

Snow & Matthews, 2016). First, reading successes and failures early in students' education can impact their self-efficacy. Social cognitive theory posits that early successes will lead to an increase in students' mastery experiences, which will enhance their self-efficacy. Positive feedback from teachers and peers is more likely to accompany accomplishments in reading and ultimately contribute to Bandura's third source of self-efficacy: social persuasions (Rabiner et al., 2016). Conversely, students who struggle to read and encounter failure will experience a reduced number of mastery experiences in addition to increasing physiological responses such as anxiety. In a 10-year longitudinal study for the Annie E. Casey Foundation, Lesnick et al. (2010) found that students who had not been able to master fundamental reading skills at the same rate as their classmates experienced "substantial decreases in their self-esteem, self-concept, and motivation to learn to read" (p. 6). Early struggles with literacy also affected the amount of reading students completed over the course of their education. Research by Wigfield and Guthrie (1997) suggested students' self-efficacy affects the amount and breadth of reading, both of which contribute significantly to their academic achievement. More recent research by Liew et al. (2008) extended these findings. In their longitudinal study of 733 first-graders, researchers found that self-efficacy in second grade was related to students' reading achievement in third grade.

In addition to its impact on students' self-efficacy, mastery of rudimentary literacy skills is essential to students' later academic success (Clemens et al., 2016; Cunningham & Stanovich, 1998; Snow & Biancarosa, 2003; Snow & Matthews, 2016). Early research by Cunningham and Stanovich (1998) found that students' decoding ability, word recognition, and comprehension skills in first grade predicted their eleventh-grade reading volume. A 2014 study conducted by Simmons et al. emphasized the importance of early diagnosis of reading proficiency, arguing that

struggling readers need intense remediation as early as kindergarten. Naturally, the inability to read will negatively affect students as they continue through their education. If students cannot cognitively access the information in their textbooks, they will struggle considerably with learning the material. These deficits will only intensify over time because students have been unable to master the foundational skills that are necessary to understand more difficult material. A longitudinal study of 119 students by Hickman et al. (2008) determined that third-grade reading level was predictive of high school dropout. Kindergarteners' reading performance and grades were significantly lower for students who eventually dropped out of high school compared to those who went on to earn a high school diploma. These early gaps widened as students progressed through school (Hickman et al., 2008).

Students' inability to read proficiently will only exacerbate their academic struggles, as reading is critical to all core area classes, even those not typically associated with reading, such as math. Rabiner et al. (2016) discovered in their research of 386 students that early reading skills were predictive of reading and math achievement after fifth grade. Cooper et al. (2014) found similar results in their study that utilized data from the National Early Childhood Longitudinal Study-Kindergarten Cohort. The researchers concluded that reading skills played a critical role in other content areas like mathematics because increasingly complex math problems, such as word problems, required students to possess a certain level of reading and verbal skills. If students do not have these skills, they will struggle to comprehend and solve such complex math problems.

However, students' developmental strengths upon entering school can vary considerably (Hickman et al., 2008), and this variance is especially true in the domain of reading. Many students come from literacy-rich homes, where they have been read to and taught the letters of

the alphabet. Some of these students even begin their education knowing how to spell their names and, in some cases, they can read a few sight words. At the other end of the spectrum are the students who struggle with these basic literacy skills. They may enter school having very little exposure to literacy; some have never been read to, and some have very little, if any, exposure to the alphabet. These students are at a serious disadvantage from the very first day of school. Unfortunately, at-risk groups, such as students of low SES, are more prone to reading difficulties than their high SES counterparts (Kieffer, 2010; Noble, Wolmetz, Ochs, Farah, & McCandliss, 2006; Snow & Biancarosa, 2003; Snow & Matthews, 2016). Using longitudinal data from the Early Childhood Longitudinal Study—Kindergarten cohort, Kieffer (2010) found that low-SES students were at a substantially higher risk of reading difficulties than high-SES students. Noble et al. (2006) echoed similar findings from their study of first- through third-grade students in New York, in that SES, as indexed by parental education, occupation, and income, "is a robust predictor of children's reading achievement" (p. 642).

Regrettably, once students fall behind in their acquisition of reading skills, it is very difficult for them to catch up (Moats, 2001). In general, reading instruction tends to fade after fourth grade (Ari, 2011; Melekoglu, 2011; Snow & Matthews, 2016), when the emphasis shifts to content-area learning. Until the end of third grade, instruction focuses on learning to read; at the beginning of fourth grade, instruction emphasizes reading to learn, and as a result, struggling readers fail to receive the direct reading instruction they need to increase fluency, self-efficacy, and reading performance (Chall, 1996; Melekoglu, 2011). Consequently, a gap, known as the Matthew Effect, forms between proficient and struggling readers.

The Matthew Effect. The Matthew Effect in reading alludes to the biblical scripture Matthew 25:29, which states, "For whoever has will be given more, and they will have an

abundance. Whoever does not have, even what they have will be taken from them" (New International Version). As soon as students enter formal education, there is disparity in their knowledge and skills, with some students coming to school on the first day already at a disadvantage. These disadvantages include differences in "comprehension or oral language . . . vocabulary or the students' awareness of the phonological and sound structure of spoken language" (Pfost et al., 2014, p. 204). These early difficulties can initiate a series of negative consequences, such as a failure to develop basic literacy skills, resulting in a lack of practice and frustrating reading experiences (Stanovich, 2009). Ultimately, these experiences can cause students to avoid reading altogether, thereby limiting their exposure to the more sophisticated vocabulary and sentence structures that become critical for comprehension of more difficult texts later in their academic careers.

On the other hand, proficient readers tend to find reading to be a rewarding experience and read more frequently, making them even better readers who will likely continue to seek out additional reading experiences (Pfost et al., 2014; Stanovich, 2009). Indeed, a reciprocal relationship in reading has been found, with vocabulary development facilitating reading comprehension, which, in turn, increases the breadth of reading (Stanovich, 2009). In their study of 56 first-grade children, Cunningham and Stanovich (1998) found that children who quickly became proficient in reading were more likely to engage in a wider amount of reading, which made a "significant contribution to multiple measures of vocabulary, general knowledge, spelling, and verbal fluency" (Cunningham & Stanovich, 1998, p. 5). Thus, this increase in reading volume contributes to the development of students' unconstrained skills, which researchers argue is significant to students' academic success (Paris, 2005; Snow & Matthews, 2016; Stahl, 2011).

More recent research underscores the importance of vocabulary on reading development and comprehension. A longitudinal study conducted by Suggate, Schaughency, McAnally, and Reese (2018) examined the vocabulary and reading development of 42 children at 12 different points in time. Initial data collection occurred when children were 19 months old, with the last data collected when participants were 16 years old. Results indicated a strong correlation between the vocabulary and reading development at each time point and subsequent development of both skills. Furthermore, participants' vocabulary at 19 months old correlated significantly with reading comprehension 15 years later (Suggate et al., 2018). Research findings on vocabulary are even more staggering when one examines the disparity in vocabulary between motivated and unmotivated readers. The least motivated readers, those in the 10th percentile rank, will be exposed to anywhere from 50,000 words a year (Cain & Oakhill, 2011) to 100,000 words per year (Nagy & Anderson, 1984). These numbers stand in stark contrast to avid readers, those typically in the 98th percentile. Students who read on a consistent basis will read anywhere from four million words per year (Cain & Oakhill, 2011) to 10 million words per year (Nagy & Anderson, 1984).

Because proficient and struggling readers are exposed to different amounts and kinds of text, a gap between the two develops early on and expands over time (Benner et al., 2010; Fiester, 2013; Stanovich, 2009). As students progress through school, early reading difficulties have a tendency to intensify as reading shifts from learning to read to reading increasingly multifaceted, content-based material (Melekoglu, 2011). These more complex reading tasks require students to have a larger vocabulary and more background knowledge in order to successfully comprehend the material (Snow & Matthews, 2016). To further exacerbate the problem, the availability of remedial reading instruction in phonological awareness and decoding

skills diminishes beyond fourth grade, and struggling readers fall further and further behind their more-proficient peers. In fact, 75% of students who experience early reading difficulties will continue to struggle with reading throughout their educational careers and throughout their lives (Benner et al., 2010). If students are not brought to a proficient reading level, early school failure "may act as a starting point in a cycle that weakens a student's attachment to school and eventually leads to dropping out" (Christle et al., 2007, p. 326).

Consequences of reading difficulties. The consequences of reading difficulties are significant and extensive. Students who struggle early on may feel that reading is an unrewarding experience, and the frustration they feel while attempting to read will only intensify if they seek out additional reading experiences. Consequently, students learn to avoid reading or merely tolerate the experience without investing in the necessary effort and cognitive skills to master the task (Stanovich, 2009). These difficulties worsen after fourth grade when students are offered little, if any, direct instruction in reading.

One way schools attempt to remediate struggling students is through grade retention, with reading being one of the primary reasons students are retained (Reschly, 2010). Theoretically, retention provides students with an opportunity to catch up to their peers and embark "on a more favorable academic trajectory" (Hughes, Chen, Thoemmes, & Kwok, 2010, p. 168), but research has demonstrated that retention has deleterious impacts on students, with one significant consequence of retention being high school dropout (Hickman et al., 2008; Reschly, 2010). This phenomenon is especially true for students that have been retained more than one time. Cratty's (2012) longitudinal study of over 68,000 North Carolina students found that almost every student who had been retained more than once had subsequently dropped out of high school. However, the study also indicated that if students had been retained once and their math and reading scores

increased significantly during that retention, this practice could actually lead to the reduced probability of dropping out (Cratty, 2012).

The decision to drop out of high school is one that reflects years of gradual disengagement from school (Reschly, 2010) and has consequences that are extreme and far-reaching. Students who drop out of high school fare far worse than their peers who earn a diploma (Messacar & Oreopoulos, 2013). Naturally, the decision to drop out before earning a high school diploma will prevent individuals from pursuing a postsecondary degree. This obstacle, in turn, will limit their career and employment opportunities (Baker, 2012; Christle et al., 2007; Clemens et al., 2016; Cratty, 2012). In 2015, the average income of a high school graduate was $30,500. Conversely, individuals who failed to earn a high school diploma or its equivalent earned wages that were 22% lower, with an annual income of just $25,000 (McFarland et al., 2017).

Lack of a high school diploma and the low earning power associated with it serve to perpetuate a dangerous cycle, often resulting in poverty. Cratty's (2012) study found that low-income students were three and a half times more likely to drop out of high school than their more affluent peers. This is in spite of demonstrating similar levels of math and reading ability in the third grade. Since poverty is so closely tied to lack of education (Hernandez, 2011), children from poverty-stricken homes are often at a significant disadvantage before they even begin formal education. Parents living in poverty commonly display deficient language skills, which negatively impacts the communication they are able to have with their children (Clemens et al., 2016). In general, these parents speak less frequently to their children, and when they do have conversations, they are often comprised of less complex vocabulary than that used by more affluent parents (Clemens et al., 2016). Consequently, children from poverty-stricken homes

often demonstrate significant deficits in vocabulary knowledge and growth during the early years of their formal education (Clemens et al., 2016).

Regrettably, students are not the only ones negatively impacted by their decision to drop out. Dropping out of high school has pervasive societal consequences as well. In fact, some research estimates that deficient literacy skills have a global economic impact of $1.2 trillion (Clemens et al., 2016). Because of their low earning power, high school dropouts comprise 52% of welfare recipients (Christle et al., 2007), which increases the demand for social services while decreasing the tax revenue available for necessary governmental services (Christle et al., 2007; Cratty, 2012). Furthermore, dropouts comprise 82% of the prison population and 85% of juvenile court cases (Christle et al., 2007), as some dropouts turn to illegal activities to supplement their low incomes (Baker, 2012). Without a doubt, dropping out of high school is a decision that has severe ramifications not only for the student, but also for society as a whole.

Reading and gender. Research clearly supports the assertion that literacy proficiency is a prerequisite to successful academic performance (Schwabe, McElvany, & Trendtel, 2014; Snow & Biancarosa, 2003). However, there is considerable, warranted concern that boys are at a significant disadvantage when it comes to reading and literacy, as ample research suggests there is a gender gap in reading favoring females (Brozo et al., 2014; Chiu & McBride-Chang, 2006; Cobb-Clark & Moschion, 2017; Entwisle, Alexander, & Olson, 2007; Kingdon et al., 2017; Robinson & Lubienski, 2011; Schreiber, Reynolds, Hajovsky, & Kaufman, 2015; Schwabe et al., 2014; Sigmundsson et al., 2018). Findings such as these are critical because any disparities in students' academic performance, particularly in regard to reading, are likely to be perpetuated as students progress through school and could negatively impact their academic trajectory.

Brozo et al. (2014) examined data obtained from the Program for International Student Assessment (PISA), which is an international survey of 15-year old student achievement. Data exposed significant disparities favoring girls in regard to print reading and digital reading. These differences are widespread and cross-cultural, as females outperformed males in print reading in all 65 participating countries; in digital reading, girls outperformed boys in 18 of the 19 participating countries. Of great concern is the fact that the gap in both types of reading increased over each PISA cycle, indicating that disparities in reading proficiency between males and females expand as students advance in their education. Chiu and McBride-Chang (2006) also used PISA data to examine the possible causes of the gender gap in reading. Researchers determined that girls displayed significantly higher levels of reading enjoyment, which accounted for 42% of the variance between male and female students. Interestingly, Chiu and McBride-Chang (2006) also found that the number of girls in a school affected the overall reading performance at a group level. They maintained that both boys and girls benefit "when a culture of enjoyment of reading pervades a school," and part of this may be the results of simply having a higher concentration of girls in a school (Chiu & McBride-Chang, 2006, p. 356). Additional factors, such as family SES, classmates' SES, and the number of books in the home, made significant contributions to the variance in reading performance as well.

However, there have been inconsistencies in research regarding deficits in specific skills, the severity of the gap, as well as its underlying causes. In their study of 485 Norwegian children, Sigmundsson et al. (2018) found that 5- and 6-year-old girls outperformed boys in regard to letter-sound knowledge, a skill that is critical for later reading achievement. While both males and females developed letter-sound knowledge as they advanced through their first year of schooling, the relative difference persisted. In an additional study utilizing older

subjects, Schwabe et al. (2014) determined that 10- and 15-year old girls outperformed boys in reading achievement and, specifically, girls seemed to have an advantage over boys when it came to answering constructed response questions versus multiple choice questions. Findings such as these can highlight specific skills girls seem to excel with, which may shed light on reading disparities and provide important practical applications for the classroom.

Research consistently demonstrates that the gender gap in reading can be seen as early as pre-school and kindergarten, with girls more prepared academically, although some findings suggest the gap is small and not statistically significant (Cobb-Clark & Moschion, 2017; Entwisle et al., 2007; Kingdon et al., 2017). Most studies, however, support the assertion that gender disparities exist and, in many cases, widen as children progress through their education (Brozo et al., 2014; Chiu & McBride-Chang, 2006; Cobb-Clark & Moschion, 2017; DiPrete & Jennings, 2012; Entwisle et al., 2007; Kingdon et al., 2017; Robinson & Lubienski, 2011). These gaps were especially prevalent among children of low- and middle-SES. Cobb-Clark and Moschion (2017) used data from the Longitudinal Study of Australian Children to analyze the gender gap in third-grade test scores in numeracy and reading. Their study of 3,073 students determined that male students scored nine points lower on their third-grade assessment, which is equivalent to three months of average academic progress. However, this gap was significant only for students of middle and low SES; among high-SES students, no statistically significant gap existed. It is also important to note that while reading disparities between male and female students were present among boys and girls of all socioeconomic groups, they were significant only for those students on subsidy. High-SES male students were able to overcome any small, early disparities, but low-SES boys did not demonstrate the same ability to surmount these initial

deficits. In fact, reading scores for low-SES boys lagged behind those of low-SES girls by five academic months and grew over the course of their education (Cobb-Clark & Moschion, 2017).

Entwisle et al. (2007) found similar results in their five-year longitudinal study of 403 students in Baltimore, Maryland. Students' performance on the Beginning School Study showed there was a significant disparity between male and female reading scores, but this was only for those students on subsidy. More importantly, long-term consequences of reading difficulties were especially rampant among low-SES students compared to their high-SES counterparts. Entwisle et al. (2007) found that more boys were placed in low reading groups compared to girls. Among those students on subsidy, 34% of boys and 24% of girls were identified as low readers. This is in stark contrast to non-subsidy students, with 11% of boys and 13% of girls being placed in low reading groups. Additionally, inequity exists between males and females, in addition to low-SES and high-SES students, in regard to retention rates. By the end of the fifth year in school, 59% of subsidy boys and 43% of subsidy girls had been retained, compared to 18% of non-subsidy boys and 16% of non-subsidy girls (Entwisle et al., 2007). Retention rates such as this are especially concerning because retention can negatively impact the long-term academic trajectories of students who have been held back in school (Cratty, 2012; Hughes et al., 2010; Reschly, 2010).

Additional factors underlying the gender gap in reading have also been investigated, including social-behavioral skills. Kingdon et al. (2017) argue that children from economically disadvantaged households tend to begin formal schooling with "less well-developed cognitive and social-behavioral skills, which are robust predictors of school achievement and dropout" (p. 266). In their study of 126 elementary school students, researchers found that boys were more likely to be retained, expelled, or make the decision to drop out of school. However, it is

important to note that these social-behavioral problems do not just manifest at school. Mothers in the study by Kingdon et al. (2017) reported they had higher instances of behavior problems from their male children than from their female children. Cobb-Clark and Moschion (2017) discovered that boys' diminished literacy skills, combined with their poor classroom behavior, were one reason they were more likely to be retained than girls. Again, these disparities were more evident for middle- to low-SES students. In fact, middle-SES parents reported more social and behavioral problems with their male children compared to their female children, and low-SES parents even expressed lower expectations for their son's academic success. DiPrete and Jennings' (2012) study produced similar results and revealed that students' social and behavioral skills had a strong relationship with their readings skills and academic performance. This gap was evident at the beginning of kindergarten and by the end of first grade, all gender differences in retention could be explained entirely by gender differences in three areas: social skills, behavioral skills, and reading.

Stereotype threat. Clearly, research demonstrates a concerning disparity between males and females in regard to reading proficiency. However, the underlying cause of this disparity is less clear. One proposed theory to the gender difference in reading is stereotype threat, first proposed by Steele (1997), and is predicated on the idea that a threat "arises when one is in a situation or doing something for which a negative stereotype about one's group applies" (p. 614). This threat of being judged by the stereotype, treated according to the stereotype, or conforming to a negative stereotype can impact student's cognitive functioning and achievement (Pansu et al., 2016). These responses to stereotypes are commonly seen in research regarding females' perceived underperformance in the fields of science, technology, engineering, and mathematics (STEM; Flore & Jelte, 2015; Hartley & Sutton, 2013; Steele, 1997). Flore and Jelte (2015)

found in their meta-analysis that adolescents and young adults viewed mathematics as a domain that is dominated by males. Additionally, researchers found that teachers tended to view male students as being more competent in mathematics with failure being the result of lack of effort rather than lack of ability. Conversely, classroom teachers expected female students to have more difficulties in math and believed their failures were a result of lack of ability instead of lack of effort. Ultimately, Flore and Jelte found that stereotype threat caused female students to underperformed on standardized math assessments.

Not all research, however, indicates that females perform more poorly than males in STEM-related classes. Hartley and Sutton (2013) concluded from their study that girls actually outperform boys throughout their schooling, even in subjects such as math and science. However, it is important to recognize that findings such as this do not necessarily disprove stereotype threat but rather introduce a different type of stereotype threat: the widely held belief that boys are less academically inclined than girls. In three related studies involving British school children, Hartley and Sutton found that as children progress through their education, "they increasingly endorse the stereotype that girls are academically superior to boys" (p. 1721), and they believe adults shared this stereotypic belief. Surprisingly, boys begin to develop and accept the stereotype of male academic inferiority as early as 7 or 8 years old (Hartley & Sutton, 2013). This becomes problematic in an educational context because this threat can develop into a self-fulfilling prophecy that leads to increased anxiety and disengagement among students (Hartley & Sutton, 2013; Pansu et al., 2016; Steele, 1997).

While the majority of research has been conducted in STEM disciplines (Flore & Jelte, 2015; Hartley & Sutton, 2013; Steele, 1997), there is an increasing body of literature investigating stereotype threat in the domain of reading (Muntoni & Retelsdorf, 2018, 2019;

Pansu et al., 2016). In their study of 80 third-grade students, Pansu et al. (2016) found that the gender gap in reading can be at least partially explained by the negative stereotype regarding boys and reading. Interestingly, only boys who were highly motivated by reading were negatively impacted by stereotype threat, suggesting that this underachievement might reflect boys' fear of confirming the stereotype rather than lack of ability or motivation (Pansu et al., 2016). Considering the importance of reading to students' overall academic achievement, findings such as these are exceptionally problematic.

Gender stereotypes, such as boys' inferiority in reading, can form early for students and can be reinforced at home (Muntoni & Retelsdorf, 2019) as well as in the classroom (Muntoni & Retelsdorf, 2018). Muntoni and Retelsdorf (2019) administered questionnaires to 1,508 secondary school students and their parents. They found that boys' underachievement in reading was related to the negative stereotypes parents had regarding reading, which caused male students to devalue their reading ability. In fact, boys tended to feel less competent in reading and less motivated to engage in the task as a result of their parents' reading-related gender stereotypes. These early stereotypes can deepen if teachers endorse them in the classroom. As children age, they become more cognizant of stereotypes held by others, such as teachers (Muntoni & Retelsdorf, 2018). The study by Muntoni and Retelsdorf (2018) found that teachers had higher expectations for girls in reading, and these higher expectations explained, in part, girls' increased levels of reading achievement. Higher expectations such as these, though beneficial for girls' performance, were detrimental for males as they resulted in weakened motivation and skills for the boys (Muntoni & Retelsdorf, 2018). A significant finding in this study, however, indicated that boys' performance in reading could be improved if they were told they were expected to perform as well or better than girls (Muntoni & Retelsdorf, 2018). This

has critical practical applications for the classroom, as it highlights the impact of teachers' words and expectations.

Academic Self-Efficacy

Previous research has extensively investigated self-efficacy in a number of different academic contexts and with children spanning multiple grades, from elementary school children to postsecondary students. However, research findings have been inconsistent, especially when one examines additional factors such as sources of efficacy, academic domain, and gender. Consistently, research has shown that academic self-efficacy is critical for learning and is positively correlated to academic performance (Fenning & May, 2013; Honicke & Broadbent, 2016). Honicke and Broadbent's (2016) meta-analysis of 59 studies determined there is a moderate positive relationship between academic self-efficacy and academic performance. In Fenning and May's (2013) study of 100 college freshmen, researchers conducted correlation analysis to determine whether self-efficacy mediates the relationship between self-concept and academic performance. Their results suggested general self-efficacy is positively related to both high school GPA and current GPA as college freshmen. These findings are significant because in the classroom, self-efficacy beliefs help determine what activities students choose to participate in, how much effort to exert in those activities, how long they will persevere in the face of obstacles, and how resilient they are to failures (Pajares, 1996). Students with higher efficacy will choose to participate in challenging tasks and will persist when they are confronted with difficulties. Even when they encounter failure, efficacious students will persist and may even become more motivated by the setbacks.

Self-efficacy is critical to learning, but in general, struggling readers in the classroom lack self-efficacy. Boakye (2015) investigated the relationship between self-efficacy and reading

proficiency in a study of 1,800 first-year college students. Students were placed in one of two groups: students at low risk of academic failure and students at high risk of academic failure. Students completed a self-efficacy questionnaire as well as the Test of Academic Literacy Levels, which is designed to assess reading proficiency. Boakye (2015) found that when students' reading self-efficacy beliefs were high, their reading proficiency was also high. Research by Rabiner et al. (2016) also found literacy skills to be critical, both to academic success and students' self-efficacy. Their research sought to determine the importance of early literacy skills when they examined how early academic skills predicted children's academic success over the course of their time in school and into adulthood. In their study of 386 kindergarten children, researchers determined that reading achievement early in formal education was predictive of reading and math achievement after fifth grade. These successes led students to receive more positive teacher feedback, feedback that encouraged subsequent effort and learning (Rabiner et al., 2016).

Bandura (1991) hypothesized four sources of self-efficacy: mastery experience, vicarious experience, social persuasions, and physiological responses. Research indicates that the sources of self-efficacy can vary according to domain and gender (Britner & Pajares, 2006; Guthrie et al., 2007; Usher & Pajares, 2006). Usher and Pajares (2006) investigated the academic self-efficacy beliefs of 263 middle school students who were enrolled in one of three reading classes. Students were categorized as being below-, at-, or above-grade-level readers. Their results suggest that girls and boys did not differ in academic self-efficacy, but there were differences in the sources of self-efficacy between boys and girls. Mastery experiences predicted academic and self-regulatory self-efficacy for both boys and girls. However, social persuasions also predicted females' self-beliefs, while vicarious experiences were significant for males'. Research by

Guthrie et al. (2007) parallels these findings in their study of 31 fourth graders. In particular, teacher and parent feedback was a key influence in females' self-efficacy. Mastery experiences and vicarious experiences, on the other hand, predicted boys' academic and self-regulatory self-efficacy. In this particular study, researchers also discovered that students' sources of self-efficacy were different, depending on the type of classes in which they were enrolled. Students reading above-grade-level reported stronger mastery experiences than those students reading at-grade level. Similarly, students reading at-grade level reported stronger mastery experiences than those reading below-grade level. Not surprisingly, those students reading below-grade level also reported greater physiological responses than their peers in the other two groups, aligning with Bandura's (1997) warning that "ability grouping further diminishes the perceived self-efficacy of those cast into lower academic tracks" (p. 175).

Research by Britner and Pajares (2006) supports previous findings that students' self-efficacy will differ depending on the domain in question. In their study of 319 middle school students, Britner and Pajares examined the sources of science self-efficacy and found that each of the four sources—mastery experience, vicarious experience, social persuasion, and physiological states—was positively correlated with students' science self-efficacy, each other, and students' grades. Girls and boys reported equal self-efficacy, despite the fact that girls earned higher grades in science. In spite of their higher science grades, females also reported higher anxiety and physiological states. There were differences, however, between male and female students. Males reported stronger mastery experiences, and only science self-efficacy was predictive of grades for boys. Girls, on the other hand, reported higher levels of self-efficacy for science self-regulation, while science self-efficacy and science self-concept predicted their science grade (Britner & Pajares, 2006). A more recent study by Butz and Usher

(2015) also demonstrates mastery experiences and social persuasions as central to students' self-efficacy. In their study of 2,511 upper elementary and middle school students, Butz and Usher sought to investigate the most frequently reported sources of self-efficacy, in addition to exploring whether those sources differed across academic domains. Through computerized surveys administered to the students, they were able to determine that mastery experiences and social persuasions were the most frequently reported sources of self-efficacy; however, females reported more social sources of self-efficacy than did their male counterparts.

Naturally, students' self-efficacy impacts more than their feelings toward a particular task; more importantly, their participation in those tasks can be affected, which is especially important in the area of reading. Stanovich (2009) maintains that reading is a reciprocal relationship. As students read, they develop a larger vocabulary base, which facilitates reading comprehension, a critical factor in further vocabulary development and reading experiences. This assertion ties directly into the Matthew Effect in reading. The more time students spend reading, the more likely they are to become proficient readers, which encourages additional future reading. Conversely, those students who do not find success in reading will be dissuaded from seeking out those experiences. Nagy and Anderson (1984) highlighted the disparity in word exposure for readers of varying ability. The least motivated reader in the middle grades can expect to read approximately 100,000 words a year, while the average student might be exposed to a million. While this difference is astounding, the numbers are even greater for avid readers who may read between 10 million and 50 million words per year. Certainly, one would assume that more proficient, avid readers will perform better in the classroom, and a study by Wigfield and Guthrie (1997) found this hypothesis to be true in their study of 105 fourth- and fifth-grade students. The results of their questionnaire revealed that students' reading amount

and breadth had a positive impact on students' classroom performance and achievement, in addition to their knowledge of the world and participation in society.

Additionally, researchers discovered students' efficacy in reading tended to be very specific, with students focusing on explicit tasks, such as being able to decipher difficult words and comprehending individual passages, rather than expressing efficacy directed toward reading in general. Solheim (2011) found students' reading self-efficacy had a statistically significant relationship to their performance on multiple choice and constructed response questions. While reading self-efficacy positively predicted students' scores on multiple-choice questions, the same did not predict students' scores on constructed response questions for low-efficacy students.

Self-Efficacy and Gender

Research investigating the relationship between self-efficacy and gender is abundant, but results have been inconsistent and dependent upon the type of self-efficacy, sources of self-efficacy, and academic discipline. Some results suggest there are no differences in self-efficacy beliefs between male and female students, as was the case with Hampton and Mason's (2003) study. Their study investigated 278 high school students in Grades 9–12, of which 128 were designated as Learning Disabled (LD). Students' sources of self-efficacy beliefs were examined, in addition to their academic self-efficacy beliefs. Hampton and Mason (2003) found that there were no gender differences in self-efficacy but conceded that the survey items assessed students' self-efficacy for academic tasks, such as completing assignments on time, and had less to do with gender-stereotypical activities, such as reading or math.

Similarly, Usher and Pajares (2006) found no differences in academic self-efficacy between males and females in their study of 263 middle school students who had been placed into one of three reading courses, depending on reading ability: above-level, on-level, and below-

level. While no differences in academic self-efficacy were found, there were differences in the sources of self-efficacy between male and female students. Universally, mastery experiences were important sources of self-efficacy, and for male students, it was the highest and contributed more than the other three sources combined. While mastery experiences were also important for female students, social persuasions proved to be an even stronger source of self-efficacy, accounting for 17% of the total variance compared to only 4% for mastery experiences. Additional research by Pajares, Johnson, and Usher (2007) reinforces findings that suggest the sources of self-efficacy are different between male and female students. In their study, Pajares et al. (2007) investigated the sources of writing self-efficacy in 1,256 fourth through 11th graders. In line with previous research, they found that mastery experiences are important contributors for both male and female students. However, girls also reported greater vicarious experiences and social persuasions, in addition to lower anxiety, for writing. In general, the writing self-efficacy beliefs were stronger for girls than boys from elementary school to high school.

In contrast, other research suggests there is a difference in academic self-efficacy between male and female students. Huang's (2013) meta-analysis of 187 studies found that males' academic self-efficacy was slightly higher than females'. These small but statistically significant differences were present at the onset of schooling and widened as children progressed through school. D'Lima, Winsler, and Kitsantas (2014) found similar results in their study of 531 first-semester college students. The researchers maintained the significance in their study lies largely in the participants because the first year of college is "a critical period in terms of academic trajectories and retention" (D'Lima et al., 2014, p. 344). Researchers examined students' responses to two questionnaires: one examining intrinsic and extrinsic motivation, and the other examining students' self-efficacy and goal orientation. Additionally, students' GPAs

were used to determine their academic performance. The results indicated that while self-efficacy increased for both male and female students, male students had higher academic self-efficacy than females at all time points. Interestingly, this is in spite of the fact that girls performed better academically as assessed through their GPA.

The study conducted by D'Lima et al. (2014) is not the only one to suggest there is a concerning disparity between girls' academic performance and their level of self-efficacy. A study of 161 students from British Columbia sought to determine if differences in math achievement were related to potential differences in girls' and boys' self-efficacy for math. Lloyd, Walsh, and Yailagh (2005) hypothesized that if achievement is, in fact, related to students' self-efficacy, males and females should display the same self-efficacy beliefs if their academic performance is the same. Their results, however, did not confirm this hypothesis, as they discovered girls tended to be less efficacious than boys, despite the fact that girls' academic achievement was significantly higher, as evidenced by their report card grades. A more recent study by Ganley and Lubienski (2016) investigated potential gender differences in the reciprocal relationship of math confidence and interest with math achievement. Using National Center for Education Statistics (NCES) data of 7,040 students, they determined that gender differences favoring boys were found on each variable at each grade level but concluded that the decreased confidence on the part of female students was unwarranted based on their academic performance in math.

However, not all research supports the conclusion that males have higher levels of self-efficacy than females. Huang's (2013) meta-analysis of 187 studies indicated that academic discipline is important when it comes to examining differences in self-efficacy of male and female students. Huang (2013) found that female students typically displayed higher levels of

self-efficacy in language arts classes. Specifically, Mills, Pajares, and Herron (2006) determined that particular skills related to language arts might vary according to biological sex. In their study of 95 college students enrolled in third- and fourth-semester French courses, Mills et al. found that females' listening self-efficacy was significantly related to their listening proficiency. The same was not true, though, for male students.

Other research suggests females' higher levels of self-efficacy could be due, in part, to their tendency to display higher levels of self-regulatory self-efficacy. Caprara et al. (2008) found that the initial level of self-regulatory self-efficacy varied according to gender, as well as the degree of decline as children progress through school. In general, females displayed higher levels of self-regulatory self-efficacy, a finding that was displayed in both Eastern and Western countries. Additionally, the rate of decline in self-regulatory self-efficacy was less severe for females than it was for males, which ultimately produced a gender gap that widened as students advanced through their education. Similarly, Denton et al. (2015) found statistically significant interactions between gender and strategy use. The results yielded from their study of 1,134 students in Grades 7–12 suggested that female students report greater use of reading comprehension strategies than boys. However, the use and frequency of reading strategies varied depending on reader proficiency and type of strategy.

Impact of Self-Efficacy on Student Behaviors

In general, students with varying degrees of self-efficacy act in different ways. Efficacious individuals are more likely to set challenging goals for themselves and have a tendency to envision success as they consider their pursuit of future tasks, a characteristic that encourages them to persevere in the face of setbacks or failures (Pajares, 1996). Additionally, students who are highly efficacious tend to be self-regulated learners who will monitor their

progress toward a goal and adjust when necessary (Zimmerman, Bandura, & Martinez-Pons, 1992). If they do encounter failure, these students are more likely to attribute that failure to lack of effort rather than lack of ability (Bandura, 1991) and will be more motivated to achieve their goals. In their study of 88 college students enrolled in an introductory psychology course, Bandura and Cervone (1986) discovered that students with a strong sense of self-efficacy intensified their efforts when confronted with difficulties and challenges in meeting their goals. In a similar study, Zimmerman et al. (1992) reported that the self-efficacy and goal setting beliefs of 102 ninth- and 10th-grade social studies students led to more favorable academic outcomes in terms of grade achievement. More recent research by Wolters and Hussain (2015) corroborates these findings. Their study of 213 university students revealed that students with high levels of self-efficacy reported sustained engagement and increased value for learning. Students that were more confident in their ability to successfully complete a task were more diligent and hardworking; they also reported being less discouraged by setbacks as they pursued the goals they had set for themselves (Wolters & Hussain, 2015).

Conversely, people with low self-efficacy tend to "harbor self-doubts about their capabilities [and] are easily dissuaded by obstacles and failures" (Bandura, 1991, p. 258). These individuals are more likely to experience anxiety and apprehension when they confront a situation for which they have low self-efficacy and tend to visualize failure, something Bandura (1991) contended will undermine performance by causing them to focus on things that can potentially go wrong rather than what might go right. This doubt can prevent individuals from putting in the necessary effort to achieve success (Boakye, 2015). Naturally, repeated failures will "erode perceived efficacy to the point where valued goals are abandoned" (Bandura & Cervone, 1986, p. 109), and instead of setting high, challenging goals, inefficacious individuals

will set low goals or no goals at all, choosing instead to avoid tasks they feel will result in failure. Even then, these easier tasks may result in apprehension and anxiety.

Postsecondary Education

One might argue the purpose of education is to prepare students for their lives after high school. For some students, high school graduation means immediately entering the workforce; others will transition to a community college or four-year institution. While one may infer the importance of a college diploma, statistics validate its significance. Pretlow and Wathington (2014) argued that America's economic prosperity is dependent upon a highly skilled labor force and maintained that economists are predicting an increase in the number of jobs requiring some kind of college degree. Simultaneously, the demand for unskilled labor will continue to decrease (Pretlow & Wathington, 2014). Baum et al. (2013) echoed the importance of a postsecondary degree. They contended that individuals with a bachelor's degree are more likely to be employed and earn more than those with a high school diploma (Baum et al., 2013). In fact, the United States Department of Labor (2018) declared that the unemployment rate for individuals with a bachelor's degree is nearly half that of people with high school diplomas. Naturally, the types of degree individuals obtain also affect their earning power. The median earnings of an individual with a bachelor's degree is $1,173 per week compared to $712 for someone with only a high school diploma (United States Department of Labor, 2018). Additionally, college graduates have increased access to health benefits and pensions, and they are more likely to lead healthier lifestyles, which decrease their overall healthcare costs (Baum et al., 2013). There are also direct benefits to society when college students persist to graduation. Baum et al. highlighted the fact that individuals' earnings impact the tax revenue available to society, with college graduates able to contribute more. Researchers also found college graduates are more

likely to be active citizens, with 42% of college graduates volunteering and 80% voting in elections.

However, recent statistics show that many students entering either a two- or four-year higher education institution do not leave with a diploma. Cooper (2017) cites National Student Clearinghouse (NSC) data that showed a significant number of students fail to graduate within six years of enrolling in school. In fact, 45% of students fail to obtain a degree from the first institution in which they enroll within six years of starting college. Of students enrolled at a postsecondary institution, roughly 12% will transfer to another college, but even then, only 57% of students graduate within six years (Cooper, 2017). Perhaps even more alarming is the statistic revealing that one in three students will drop out of college entirely (Cooper, 2017).

One may question why so many students who begin college fail to graduate. Jones (2017) contended, "getting in the door is important—but leaving with a credential is even more so" (p. 75). One logical explanation is that students are underprepared for the rigors of college coursework and require remedial coursework that helps prepare them for the standard required at the college level. Smith (2016) maintained that students' perceptions of the rigors of college coursework are often skewed, leaving them with an unclear idea of whether they are actually prepared to successfully complete college-level coursework. In fact, many students hold the erroneous belief that they do have the skills and knowledge necessary to succeed when, in fact, they do not (Smith, 2016). Interestingly, a study conducted by the Center for Community College Student Engagement found that 86% of students believed they were academically prepared for college, but 67% tested into developmental coursework (Smith, 2016). Theoretically, remedial classes are beneficial for students, as they help lay the necessary foundation for later success, but research suggests the opposite, revealing these classes to be

more detrimental than advantageous. Grubb et al. (2017) went so far as to argue remedial coursework at the beginning of college is actually "antithetical to timely completion" (p. 81), partly because many of these courses are not credit bearing (Logue, Watanabe-Rose, & Douglas, 2016). Consequently, students are required to spend at least one semester in these courses, but they are not earning any credits toward graduation, thereby delaying completion.

The percentage of college students requiring developmental, remedial classes is staggering. In a study conducted at the City University of New York, Logue et al. (2016) found that 76% of incoming freshman were assessed as needing remedial classes. Of those students, only 7% graduated within three years. Participants in their study were randomly assigned to one of three different groups: traditional remedial algebra, traditional remedial algebra with a weekly 2-hour workshop, and a college-level, credit-bearing statistics class with a weekly 2-hour workshop. What they found was that students enrolled in the credit-bearing statistics course performed better than the students enrolled in either of the remedial courses, despite its more difficult content. This finding begs the question of whether or not remedial courses are accomplishing the goals they set out to accomplish.

It is important to note that there is considerable disparity in college completion rates, which vary based on institution type, college selectivity, and student ethnicity. The six-year graduation rates at public institutions were 59%, with private non-profit institutions seeing a six-year graduation rate of 66%; private, for-profit institutions generated the lowest graduation rate with just 23% of students obtaining a degree within six years (McFarland et al., 2017). A college's degree of selectivity also impacted the graduation rate, with the most selective colleges having the highest completion rates, and the least selective colleges producing the lowest percentage of graduates, especially open-enrollment universities that averaged just 32% degree

completion within six years (McFarland et al., 2017). These statistics include public community colleges that see only 38% of their students completing, including students who transferred to a different institution (Cooper, 2017). Perhaps even more alarming are the wide discrepancies in graduation rates of different racial and ethnic groups. Overall, the graduation rate of African American students was the lowest at 46%, which lags behind the graduation rates of Hispanics (60%), Whites (69%), and Asian Americans (77%; "The Racial Gap in College Graduation Rates," 2017).

In addition to a college's selectivity, there are a number of factors that affect whether or not students leave college with a diploma. Among them are parental education and socioeconomic status. According to Baum et al. (2013), students whose parents have earned a bachelor's degree are more likely to complete their college education. In part, this outcome is due to the fact that college-educated mothers tend to spend more time with their children in developmental activities (Baum et al., 2013), such as reading. Moreover, students whose families have a higher income level are more likely to graduate within six years (Baum et al., 2013).

Dual enrollment. With research clearly supporting the benefits of a college degree, examining additional factors that may impact a student's ability and willingness to complete his or her college education is important. An (2013) maintained that new college students are often poorly prepared for college, which negatively impacts their graduation rates. One way to rectify this problem is to offer students the opportunity to participate in dual enrollment (DE) courses. Pierce (2017) defined DE classes as courses through which students can simultaneously earn high school and college credit, and participation in these courses has grown significantly in the

past several years (Grubb et al., 2017), with more than two million students participating every year (Cowan & Goldhaber, 2015).

Benefits of dual enrollment. Research is rife with examples of how dual enrollment courses benefit those students who take them. These benefits include cost-effectiveness (An, 2013; Hoffman, Vargas, & Santos, 2009; Ozmun, 2013), an increase in students' academic performance (Allen & Dadgar, 2012), increased retention and degree completion (An, 2013; Giani, Alexander, & Reyes, 2014; Grubb et al., 2017), and student-perceived benefits (Kanny, 2015). In light of the benefits of a college degree, it is critical to examine how participation in dual enrollment courses might lead to better postsecondary outcomes for students.

Cost-effectiveness. Often, dual enrollment courses are offered at a discounted or even free rate for students (Hoffman et al., 2009; Ozmun, 2013). This opportunity is clearly advantageous for students of low SES, students who are traditionally under-represented in the postsecondary classroom (An, 2013). An (2013) argued there is an alarming discrepancy in college degree attainment for students of different SES, with high-SES students more likely to earn a college degree than low-SES students. This disparity creates a gap that ultimately leaves low-SES students less academically prepared than their high-SES counterparts, a gap that is likely to continue and even widen as college tuition costs increase and need-based aid decreases (An, 2013). One may argue, then, that low-SES students may benefit more from dual enrollment courses than high-SES students (An, 2013).

GPA. A study by Allen and Dadgar (2012) found that participation in dual enrollment classes during high school had a large and positive effect on students' ability to earn more credits in college, as well as earn higher grades. In their study, researchers utilized administrative data on The City University of New York's College Now program to investigate what impact DE

enrollment had on over 22,962 students' college credit accumulation, GPA, and retention. Through regression adjusted estimates, they controlled for a number of demographic and prior achievement factors, including race, age, gender, language minority status, and free or reduced-price lunch status. Researchers also used eighth-grade English and math test scores, in addition to verbal and math Scholastic Aptitude Test (SAT) scores as a means of accounting for potential institutional differences among schools. Additionally, Allen and Dadgar attempted to account for unobservable preexisting differences by utilizing the quasi-experimental difference in differences analysis. Their results revealed that completing just one or two dual enrollment classes in high school is "associated with positive and substantial gains including earning more credits during the first semester of college and a higher college GPA" (p. 15). Specifically, students who participated in DE classes earned almost one more credit during their first semester of college and had a GPA that was 0.16 points higher in the first semester (Allen & Dadgar, 2012). In essence, participation in dual enrollment coursework provides incoming freshmen with academic momentum that allows them to complete their degree in a timelier manner.

Retention and degree completion. In his study, An (2013) used data from the National Education Longitudinal Study of 1988 to determine if participation in DE courses impacted students' college degree attainment. Using propensity score matching, An determined that DE participation does, in fact, affect students' graduation rates. The probability of students earning any kind of postsecondary degree increased by eight percentage points if they had previously participated in DE. Participation in DE courses also increased the probability of students earning a bachelor's degree by seven percentage points (An, 2013). Furthermore, his study revealed that DE participation did not impede low-SES students from earning a degree, while first-generation students were more likely to earn a college degree than similar students who did not participate

in DE classes. Interestingly, An's results showed that while participation in DE increases students' probability of obtaining a college degree, that likelihood was primarily for students who had taken two DE classes. There was little additional benefit beyond six credits.

A question that may arise based on An's (2013) findings is why dual enrollment is beneficial for students if there is little advantage for those who take six or more credits? One possibility is that DE courses allow students the opportunity to explore beyond the "scripted standards of the high school curriculum" (An, 2013, p. 58). Dual enrollment classes tend to be more rigorous for students, thus exposing them to instruction and learning that is more typical at the college level. Additionally, students' ability to do well in a DE course will translate into an increased confidence to perform well in college. Consequently, if students take one or two DE classes, they are provided with the same exposure to the rigor that students taking six or more classes would be. There would be little, if any, difference.

A more recent study conducted by Grubb et al. (2017) yielded comparable results. Similar to An's (2013) study, this study utilized propensity score matching in examining 1,232 first-year college students, 246 of whom had participated in DE classes during high school, to determine if participation in dual enrollment courses impacted students' rates of degree attainment as well as their need for remedial college courses. Their results showed that 30% of dual enrollment participants earned an associate's degree or certificate in two years, and over 45% of students finished in three years. This finding is a stark contrast to the completion rates of students who had not participated in DE classes, with only 15% of them earning a degree in two years, and 36% finishing in three years. There were also considerable differences in students' need for remedial college coursework, with just 4% of DE students being placed in remedial

classes, while more than 11% of students who had not taken DE classes were required to take remedial classes.

While these studies are promising, Giani et al. (2014) noted that there are limitations to each. Allen and Dadgar's (2012) study was limited to students who attended the City University of New York. Even though researchers were able to track students' enrollment in colleges outside the system, they were not able to obtain information regarding the number of credits those students earned or their GPA. Grubb et al. (2017) acknowledged one of the limitations of their study was the lack of covariates that may influence educational outcomes. Specifically, researchers lacked data on school counseling, which may impact students' knowledge of and participation in DE classes; family size or structure; home language; or participation in extracurricular activities. Moreover, there was a lack of information regarding school rigor, which can impact students' GPA. The sample size of this study was also relatively small, with a sample of 1,232 students, 246 of whom had participated in DE classes; this limitation prevents the findings from being generalized to a broader population.

The study by Giani et al. (2014) attempted to control for some of the flaws in other studies. They utilized statewide longitudinal data of K–12 students in Texas, which allowed them to track an entire statewide cohort of students. Researchers used propensity score matching "to reduce the self-selection bias associated with high achieving students being more likely to take dual-credit courses" (Giani et al., 2014, p. 202). Using multi-level logit models to control for various covariates and separate analyses to determine university outcomes, researchers found that participation in DE courses increased the likelihood of students pursuing and completing a postsecondary degree.

Student-perceived benefits. Kanny (2015) examined the benefits of dual enrollment participation from the students' perspectives. Using a small independent charter school in Los Angeles, California, Kanny (2015) utilized questionnaire data from five high school seniors who participated in the DE program at the school, and her findings revealed there were a number of perceived benefits. First, students reported exposure to college-level material and assignments as beneficial. Particularly, they responded that DE courses had more rigorous requirements, such as lengthier papers, that students would not have otherwise been exposed to had they not taken the classes. Interestingly, the students reported excitement in the challenge and a sense of pride at accomplishing these more demanding tasks.

Furthermore, students cited the introduction to the "hidden curriculum" of college as being a beneficial consequence of dual enrollment classes (Kanny, 2015). This exposure includes implicit skills college students utilize that high school students generally do not employ, for example, seeking out and interacting with faculty members in order to learn the content and be successful in the class. In a typical high school classroom, teachers are readily available to assist students, and they understand students' needs more than do college professors who generally have larger class sizes. Consequently, students enrolled in college-level courses must be more proactive in pursuing professors and requesting help. Included in the hidden curriculum is the need for students to understand their own learning styles (Kanny, 2015), as students must understand how they learn and find ways to master the content. This knowledge, and the development of it, is more limited in a traditional high school classroom that is often restrictive and structured.

Drawbacks of dual enrollment. Despite the myriad benefits of dual enrollment, researchers have identified some drawbacks as well. Among these is the impact that a low grade

can have on a student's overall GPA and high school transcript, as well as the inequity regarding the enrollment and participation of minority students and students of low socioeconomic status. With dual enrollment participation becoming more widespread in high schools, it is important to understand and consider the disadvantages associated with dual enrollment as well.

Impact of low grades on GPA. Kanny (2015) found that while the participants in her study reported several advantages to participating in DE classes, they simultaneously acknowledged aspects that were detrimental to their academic experiences. One such drawback was an issue with credits and grades. Even though participation in DE classes is often seen as a way to augment high school transcripts, the fact remains that these are high school students taking college-level courses, courses that tend to be more difficult and rigorous. If students perform poorly, these grades are reflected on their transcripts, something that can negatively affect their overall GPA. One participant in Kanny's (2015) study even went so far as to say participation in DE classes provided no benefit at all because she feared when college admissions counselors reviewed her high school transcript, they would perceive the document with uncertainty because of a lower grade. As a result, she expressed worry about being admitted to the colleges she wished to attend (Kanny, 2015).

Inequity. Student's ability to participate in dual enrollment varies by state and locality. In Florida, for example, students must have a cumulative GPA of 3.0 or higher in order to participate. Other states, such as Virginia, do not have a minimum GPA requirement, but students must pass placement tests to enroll in DE courses (Pretlow & Wathington, 2014). While minimum requirements such as GPA or placement test scores help provide students the best opportunity to be successful in the more rigorous DE classes, these restrictions also serve to exclude some of the students who could benefit from them. The study by Pretlow and

Wathington (2014) utilized data collected by the Virginia Community College system of students who were enrolled in at least one dual enrollment course as a high school senior and who graduated in the spring of 2004, 2005, or 2006. Their findings revealed that while there were significant increases in the number of minority students taking DE classes, they were still largely underrepresented in the total population, specifically Black and Hispanic students (Pretlow & Wathington, 2014). Compared to White students, who comprised 66.2% of the 2004 graduating class and 81.6% of the dual enrollment students, Black students made up 23.7% of the graduating class but only 13.1% of dual enrollment students (Pretlow & Wathington, 2014). The statistics were similarly bleak for Hispanic students who accounted for 4.5% of the graduating class but less than 1% of dual enrollment students (Pretlow & Wathington, 2014).

Taylor (2015) found similar results using data obtained from the Illinois Educational Research Council at Southern Illinois University. Taylor used a purposeful sampling strategy to identify students who participated in dual enrollment classes during their senior year of high school. He then selected non-dual enrollment students who attended the same high schools as the DE students. With this sample, Taylor created two sub-samples of students: all non-White students and low-income students. Using Propensity Score Matching (PSM), a final sample of 4,727 dual enrollment students and 17,639 non-dual enrollment students was established. Taylor found that while dual enrollment classes provided benefits for students who chose to take them, there were disparities between students of color and low-income students compared to White students, with the former two groups being underrepresented.

Summary

Without question, reading is an essential skill students must master early if they are to be successful academically. Chall (1996) posited there are six stages children will go through as

they learn to read. At the earliest stages, educators must provide students with ample exposure to literacy and sufficient opportunities to practice if they are to solidify their knowledge. However, the ability to read and comprehend text is dependent upon more than just requisite knowledge. Automatic information processing theory maintains students should also be able to perform the necessary skills accurately and automatically (LaBerge & Samuels, 1974). Because people have limited attentional resources available to devote to reading, it is imperative that students be able to quickly and accurately read the words on the page so they can focus their attention on comprehension. If students are unable to develop this skill, the majority of their attention will be concentrated on decoding, thereby limiting the attention they will have available to understand the text.

Complicating the issue is the fact that reading is a complex, difficult task comprised of many sub-skills, and children often enter formal schooling with varying degrees of literacy exposure. Some children possess a solid foundation in literacy, while other children enter school with very little exposure to the written word. Unfortunately, there are often significant disparities and gaps among children, and these deficits must be addressed early in order to put children on a positive academic trajectory, as reading is fundamental to all learning.

Early reading successes serve to enhance children's self-efficacy. As students master reading skills and encounter success, they find the task to be a rewarding one. This mastery encourages them to seek out additional reading experiences (Stanovich, 2009), and they continue to grow as readers and become more efficacious. Research suggests that students with high levels of self-efficacy set higher educational goals (Bandura & Cervone, 1986; Zimmerman et al., 1992) and persevere in the face of difficulties (Bandura, 1991; Pajares, 1996). Efficacious students seek out challenging tasks even when confronted with potential failure, as they view

obstacles as opportunities to grow and learn. Conversely, early failures diminish self-efficacy, and students with low self-efficacy tend to feel threatened with difficult courses and tasks, partly because they feel that potential failure is indicative of ability. This lack of confidence results in less motivation and perseverance (Bandura & Cervone, 1986; Boakye, 2015), and ultimately, some students may choose to leave school without attaining a diploma, a decision that has severe and long-lasting ramifications, both for the student and society.

Fundamental to students' success, however, is their self-efficacy, the belief that they can be successful in their pursuits. A critical task, then, is to seek out ways to enhance students' self-efficacy and provide them with the best opportunities for success. One potential way to do so is to provide dual enrollment courses. Dual enrollment courses are those for which students can simultaneously earn high school and college credit. This opportunity places them on a more advantageous academic trajectory because they enter college with earned credits toward a degree. Dual enrollment classes also provide exposure to the rigors of college coursework, so students are better prepared when they enter college.

Ouweneel, Schaufeli, and Le Blanc (2013) maintained that although students' abilities are critical to their academic motivation and success, their beliefs regarding their capabilities are even more important. Even if students lack skills, they can still be motivated and inspired to be successful, and if they are efficacious, they may be inclined to select more difficult coursework, such as dual enrollment classes. Because dual enrollment courses provide benefits that extend beyond high school, examining whether students who choose to participate in such classes have higher self-efficacy than students who enroll in general education classes is important. However, research is lacking in this critical area. Additional research can help to inform practice and provide insight into which types of classes are most beneficial to students' success in high school

and beyond. Previous research supports the benefits of dual enrollment courses, and if participation in such classes is linked to higher levels of self-efficacy, students and school faculty must be aware of such benefits, so they can guide students in making wise educational decisions.

CHAPTER THREE: METHODS

Overview

This study sought to determine if there was a difference between the reading self-efficacy of male and female students enrolled in general education English classes and male and female students enrolled in dual enrollment English classes. Chapter Three will include a discussion of the following sections: study design, research question, hypothesis, participants, and setting. It will also outline the study's instrumentation, procedures, and data analysis.

Design

The research design selected for this non-experimental, quantitative study was causal-comparative. According to Gall, Gall, and Borg (2007), a causal-comparative research design is appropriate because the groups are naturally occurring and the design alludes to cause-and-effect relationships between groups on the dependent variable. For the purpose of this study, the independent variables were course placement, with students being enrolled in either a general education English course or a dual enrollment English course, and gender. General education English classes are those in which students are instructed with same-grade peers despite developmental or performance level (Doyle & Giangreco, 2013). Dual enrollment classes are defined as those for which students can simultaneously earn high school and college credit (Pierce, 2017). Gender refers to the biological sex of each student at birth, either male or female. The dependent variable was students' reading self-efficacy, which is defined as their belief in their ability to successfully complete a task (Bandura, 1986). This study focused on the domain-specific self-efficacy of reading and comprehension of academic texts.

Research Questions

The research questions for this study were as follows:

RQ1: Is there a difference between the reading self-efficacy of students who are enrolled in general education English classes and students enrolled in dual enrollment English classes?

RQ2: Is there a difference between the reading self-efficacy of male and female students enrolled in English classes?

RQ3: Is there an interaction between the reading self-efficacy of male and female students enrolled in general education English classes and male and female students enrolled in dual enrollment English classes?

Hypotheses

The null hypotheses for this study were as follows:

$H_0$1: There is no difference between the reading self-efficacy of students who are enrolled in general education English classes and students enrolled in dual enrollment English classes.

$H_0$2: There is no difference between the reading self-efficacy of male and female students enrolled in English classes.

$H_0$3: There is no interaction between the reading self-efficacy of male and female students who are enrolled in general education English classes and male and female students enrolled in dual enrollment English classes.

Participants and Setting

Population

The participants for the study were selected from two rural school districts in southwest Virginia during the spring semester of the 2018–2019 school year. School District 1 includes three high schools while School District 2 has one high school. Both school districts are located in rural, high poverty areas, with 55.9% of the student population at School District 1 and 55.7%

of the student population at School District 2 qualifying for free or reduced lunch. The demographics for School District 1 report 48% female and 52% male, 95.7% White, 1.9% African American, 1% multiracial, 0.8% Hispanic, 0.4% Asian, 0.1% Pacific Islander, and 0.1% Native American ("School District 1," 2018). The demographics for School District 2 report 48% female and 52% male, 98.2% White, 0.9% African American, 0.5% Hispanic, 0.3% multiracial, and 02% Asian ("School District 2," 2018).

Sample

The participants for this study were senior high school students enrolled in either a general education or dual enrollment English course during the spring semester of the 2018–2019 school year. All schools were located in two school districts in southwest Virginia, and the students were enrolled as 12th-grade students at the beginning of the spring semester. The sampling procedure was a convenience sample, as one school district was the location of the researcher's employment, making it easier to secure permission to conduct the research. The other school district was located near the researcher's residence, and the researcher was also familiar with school administrators. Gall et al. (2007) cited these as reasons for utilizing convenience sampling.

The total number of participants sampled was 213 students. After removing incomplete surveys, the final sample size was 190 participants, which exceeds the required minimum for a medium effect size (Gall et al., 2007). Gall et al. (2007) maintained a minimum sample size of 100 students is needed for a medium effect size with statistical power of .7 at the .05 alpha level. The demographics for this sample were 50% male (n = 95) and 50% female (n = 95).

Senior students were enrolled in one of two kinds of English courses: general education English or dual enrollment English. Each class is one semester long, which consists of 90 days

of instruction. School District 1 had six senior general education English courses and seven dual enrollment English courses. School District 2 had three senior general education English courses and two dual enrollment English courses.

Group 1 (General Education English Classes)

The general education English classroom is a naturally occurring group of students who choose to enroll in general education English classes instead of participating in a dual enrollment English class. Students who elect to participate in general education English classes are instructed with their peers, regardless of students' individual abilities. The percentage of students participating in general education English classes was 42.1% (n = 80). Of those 80 students 71.2% were male (n = 57) and 28.8% were female (n = 23).

Group 2 (Dual Enrollment English Classes)

Group 2 consisted of senior students enrolled in dual enrollment English. In both school districts, students must earn a passing grade on dual enrollment placement tests in order to register and participate in the class. The percentage of students participating in dual enrollment classes was 57.9% (n = 110). Of those students, 34.5% were male (n = 38) and 65.5% were female (n = 72).

Instrumentation

For the purposes of this study, the Self-Efficacy for Reading (SER) survey, developed by British researchers Prat-Sala and Redford (2010), was administered. See Appendix B for Self-Efficacy for Reading instrument, Appendix C for permission to use the instrument, and Appendix E for permission to reprint it. The purpose of this instrument is to measure students' self-efficacy as it relates to reading and comprehension of academic texts in a postsecondary educational environment. Because the instrument was used in a high school setting, permission

had to be attained to modify the wording of the instrument's original instructions to reference high school instead of college. Additionally, permission was sought to change the word "whilst" to "while" to eliminate any confusion on the students' part as they completed the instrument. See Appendix D for permission to modify the instrument's wording.

Prat-Sala and Redford (2012) outlined the development of their survey as arising as a consequence of flaws in previous self-efficacy surveys. Specifically, the authors contended that previous research did not address all the key areas necessary for older, more proficient readers; instead, prior studies incorporated more elementary reading skills, such as correctly identifying letters and grammatical errors, as well as correctly spelling words. In addition to these beginning skills, older readers must also be able to comprehend the text and understand important arguments, in addition to evaluating those ideas and arguments. Guthrie and Mosenthal (1987) argued that comprehension is the intended outcome of all reading, and this consists of such skills as "understanding the meanings of words as they are used in sentence contexts, comprehension of sentences, and the acquisition of new information" (p. 292). Thereby, reading self-efficacy instruments must address these areas of reading that are instrumental for older readers.

The Self-Efficacy for Reading (SER) scale consists of a single scale for reading self-efficacy. Prat-Sala and Redford (2012) reported alpha coefficients ranging from 0.881 to 0.897 for SER, indicating the instrument is reliable. The SER instrument has been used in several other studies (Maguire, Everitt-Reynolds, & Delahunt, 2013; Prat-Sala & Redford, 2012; Tanyer, 2015). Redford (personal communication, April 9, 2018) explained that a manual for the Self-Efficacy for Reading scale was not created, primarily because researchers followed Bandura's (2006) procedures for constructing measures of domain-specific self-efficacy. This includes, but is not limited to, ensuring the measurement is domain-specific rather than global, formulating

statements utilizing phrases like *can do* instead of *will do*, and maintaining participant confidentiality by excluding identifying information (Bandura, 2006).

The Self-Efficacy for Reading scale contains 12 statements of reading self-efficacy, assessed on a 7-point Likert scale from 1 (*not very well at all*) to 7 (*extremely well*). Students' scores ranged from 12 to 84 total points. A score of 12 was the lowest score a student could obtain, indicating he or she had low self-efficacy for reading. A score of 84 was the highest score a student can obtain, indicating he or she had high self-efficacy for reading.

The SER took approximately 10–15 minutes to complete and upon completion, students placed their survey in an envelope and sealed it. Teachers then collected all envelopes from students and placed them in a secure location until the researcher collected the surveys and scored them. The data were entered into SPSS and analyzed using SPSS software.

Procedures

Before commencing the study, the researcher obtained approval from the university's Institutional Review Board (IRB). See Appendix A for IRB approval to conduct this study. The researcher also contacted the district superintendents through a formal letter for permission to conduct the research in their schools' English classrooms. Upon consent, the researcher sent formal letters to school principals of the participating high schools, serving students in Grades 9 through 12. This letter explained the purpose of the study and asked for permission to conduct the research with senior students at their respective high schools.

Before administering the survey, the researcher met with all teachers to explain the purpose of the study and provide an opportunity for them to ask questions to gain clarification about the study and its procedures. At this meeting, the researcher provided teachers with opt-out forms to give their students (see Appendix G), a script for informing students of the study

(see Appendix F), and a manila envelope in which to secure the consent forms. All teachers said they felt comfortable administering and collecting the research materials in their classrooms. The researcher requested that the teachers collect the opt-out forms within one school week (five school days). As students returned the opt-out forms, the teachers placed them in the manila envelope provided by the researcher and placed them in a secure location. Teachers informed students that when they completed the survey, their names would be placed in a drawing to win one of four $25 gift cards. One $25 gift card was drawn for each school.

After five school days, the researcher picked up the opt-out forms from each teacher and provided the teachers with the following items: student assent/consent forms (see Appendix H), instructions for administering the survey (see Appendix I), a Self-Efficacy for Reading survey for each student who had permission to participate, envelopes for each student, and a large manila envelope for the teacher to secure the surveys. The researcher requested that the teachers have the students complete the survey within one school week (five school days). After five school days had passed, the researcher emailed each teacher to see if the surveys had been completed and picked those surveys up. All teachers had the surveys completed within this time frame.

The researcher then analyzed the completed surveys for completeness, and incomplete surveys were discarded. A total of 213 surveys were turned in, but 23 of those surveys had to be discarded because they were incomplete. After the initial analysis was completed, the researcher entered all the survey data into SPSS and analyzed them using SPSS software. After the data had been entered, the researcher placed all surveys in a sealed envelope and put them in a secure location where they will be kept for three years.

Data Analysis

Because this study was a causal-comparative study and examined self-efficacy as it relates to course placement and gender, the researcher used a two-way Analysis of Variance (ANOVA) testing the nulls at the 95% confidence level. The two-way ANOVA compared the reading self-efficacy scores of male and female students enrolled in dual enrollment English courses compared to the reading self-efficacy scores of male and female students enrolled in general education English courses. This was an appropriate test because it "compares the amount of between-groups variance in individuals' scores with the amount of within-groups variance" (Gall et al., 2007, p. 318). The researcher began by screening the data. The researcher then used box-and-whisker plots to test for outliers. The box-and-whisker plot generated by SPSS did identify outliers, but Gall et al. (2007) maintained that outliers should only be removed if there is an error in calculation or if outliers were not exposed to the same conditions as other participants. Since no outliers fell into either of these two categories, all other outliers remained part of the data. To test for normality, the researcher utilized Kolmogorov-Smirnov test ($n > 50$). To test the assumption of Equal Variance, the researcher used a Levene's Test. Finally, the researcher addressed effect size using Eta squared and descriptive statistics were computed.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this non-experimental, causal-comparative study was to investigate the differences in reading self-efficacy of senior high school students enrolled in different types of English classes, specifically male and female senior high school students enrolled in general education English classes and male and female students enrolled in dual enrollment English classes. Students' gender and class enrollment were independent variables, and students' reading self-efficacy was the dependent variable. A convenience sample of 190 students from two school districts in rural Virginia provided the data for this study. This study sought to address the gap in the literature regarding the differences in reading self-efficacy of students who are enrolled in different types of English classes, specifically students enrolled in general education English classes and dual enrollment English classes. The previous chapter detailed the methodology of the study. Chapter Four will provide an overview of the research questions and null hypotheses guiding this study. Moreover, this chapter will discuss the research findings, including descriptive statistics and results.

Research Questions

The research questions for this study were as follows:

RQ1: Is there a difference between the reading self-efficacy of students who are enrolled in general education English classes and students enrolled in dual enrollment English classes?

RQ2: Is there a difference between the reading self-efficacy of male and female students enrolled in English classes?

RQ3: Is there an interaction between the reading self-efficacy of male and female students who are enrolled in general education English classes and male and female students enrolled in dual enrollment English classes?

Null Hypotheses

The null hypotheses for this study were as follows:

$H_0$1: There is no statistically significant difference between the reading self-efficacy of students who are enrolled in general education English classes and students enrolled in dual enrollment English classes.

$H_0$2: There is no statistically significant difference between the self-efficacy of male and female students enrolled in English classes.

$H_0$3: There is no statistically significant interaction between the reading self-efficacy of male and female students who are enrolled in general education English classes and male and female students enrolled in dual enrollment English classes.

Descriptive Statistics

The first research question investigated whether or not there was a significant difference in the reading self-efficacy scores of senior high school students enrolled in general education English classes compared to senior high school students enrolled in dual enrollment English classes. The total number of students surveyed was 213. Twenty-three surveys were removed due to incomplete surveys, resulting in a total of 190 student surveys for data analysis. Incomplete surveys were removed if students did not select the class in which they were enrolled and/or their gender; other surveys were removed because answers were not provided for one or more survey statements. When broken down according to class enrollment, 42% of students

were enrolled in general education English classes (n = 80), and 58% of students were enrolled in dual enrollment English classes (n = 110).

Study Variables

The study consisted of two independent variables and one dependent variable. The two independent variables were gender and course enrollment. Gender referred to students' biological sex, either male or female. Course enrollment referred to either placement in general education English class or dual enrollment English class.

The dependent variable was students' reading self-efficacy as assessed through the Self-Efficacy for Reading survey (SER), developed by Prat-Sala and Redford (2010). The SER assesses students' academic reading self-efficacy using a 7-point Likert scale. A score of 12 is the lowest possible score, indicating the student has a very low level of self-efficacy for reading academic texts; the highest possible score a student can earn is 84, which indicates the student has a very high level of self-efficacy for reading academic texts. The mean self-efficacy score for students enrolled in general education English classes (M = 58.70, SD = 10.64) was lower than for students enrolled in dual enrollment English classes (M = 68.17, SD =8.60). The entire sample had a mean self-efficacy score of 64.18 (SD = 10.58).

The second research question addressed whether or not there was a significant difference between male and female high school students enrolled in English classes. Demographic data revealed that 50% of the participants were male (n = 95) and 50% of the participants were female (n = 95). The mean reading self-efficacy score for males was 61.37 (SD = 11.26) compared to female students who had a mean reading self-efficacy score of 67.00 (SD = 9.07). See Table 1 for descriptive statistics.

Table 1

Descriptive Statistics—Class Enrollment and Gender

Gender	Class Enrollment	*M*	*SD*	*N*
Male	General Education	57.60	11.614	57
	Dual Enrollment	67.03	7.937	38
	Total	61.37	11.257	95
Female	General Education	61.43	7.204	23
	Dual Enrollment	68.78	8.923	72
	Total	67.00	9.071	95
Total	General Education	58.70	10.636	80
	Dual Enrollment	68.17	8.599	110
	Total	64.18	10.579	190

Results

Data Screening

Data screening included box-and-whisker plots to identify outliers on the dependent variable of students' reading self-efficacy. Outliers were detected with male and female students in both general education and dual enrollment English classes (see Figure 1). After further examination, the researcher verified the scores for the outliers were accurate, and all research participants were exposed to the same environment. Gall et al. (2007) cite these as reasons for keeping outlier scores in a data set, regardless of the fact that they may distort the results.

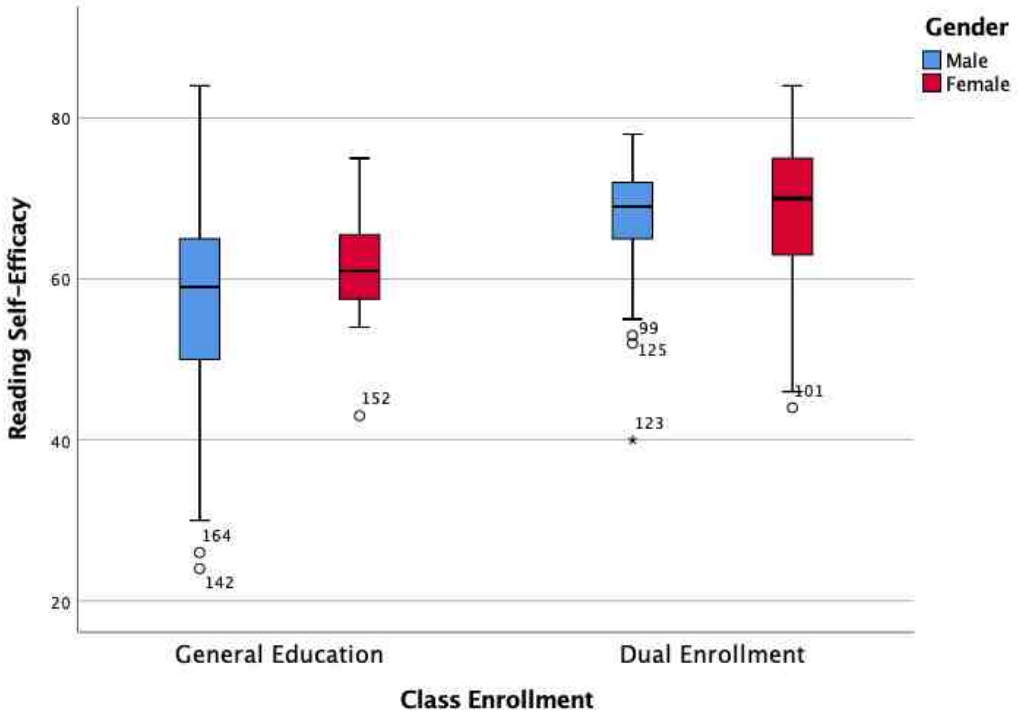

Figure 1. Box-and-whisker plots for reading self-efficacy.

Assumption Tests

The assumptions for the two-way ANOVA were checked using the Levene's test for equality of variances and the Kolmogrov-Smirnov test to test the assumption of normality. The Levene's test yielded significant results, $F(3, 186) = 2.995$, $p = .032$ (see Table 2).

Table 2

Levene's Test of Equality of Population Variances

F	*df*1	*df*2	Sig.
2.995	3	186	.032

The assumption for homogeneity of variance was not met; however, the ANOVA is considered a robust test against the homogeneity of variance assumption. For this reason, the researcher continued with the analysis.

The results of Kolmogorov-Smirnov indicated the distribution for male students enrolled in general education classes was normal; however, the distribution was significant for male students enrolled in dual enrollment classes (see Table 3).

Table 3

Tests of Normality[a]

		Kolmogorov-Smirnov[b]		
	Class Enrollment	Statistic	*df*	Sig.
Reading Self-Efficacy	General Education	.089	57	.200*
	Dual Enrollment	.162	38	.013

*This is a lower bound of the true significance
[a]Gender = Male
[b]Lilliefors Significance Correction

As a result of the tests of normality for male students, the researcher created histograms for male students enrolled in dual enrollment coursework and visually inspected each curve (see Figure 2). After visual inspection the researcher determined the assumption was met.

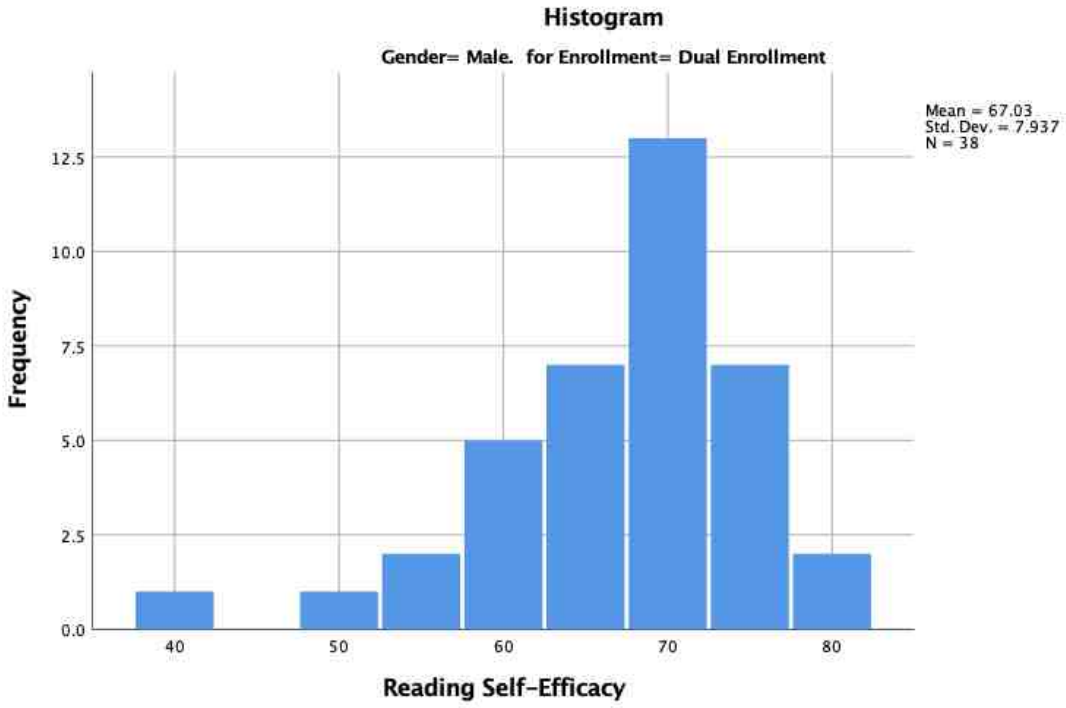

Figure 2. Histogram for male students in dual enrollment courses.

The results of the Kolmogorov-Smirnov indicated the distribution for female students enrolled in both general education classes and dual enrollment classes was normal (see Table 4).

Table 4

Tests of Normality[a]

	Kolmogorov-Smirnov[b]			
	Class Enrollment	Statistic	*df*	Sig.
Reading Self-Efficacy	General Education	.133	23	.200*
	Dual Enrollment	.098	72	.081

*This is a lower bound of the true significance.
[a]Gender = Female
[b]Lilliefors Significance Correction

Null Hypothesis One

The first null hypothesis stated there is no significant difference in the reading self-efficacy of senior high school students enrolled in general education English classes and senior high school students enrolled in dual enrollment English classes. This hypothesis was analyzed using a two-way ANOVA to compare the reading self-efficacy scores of students enrolled in general education English classes to students enrolled in dual enrollment English classes at an alpha of .05 level. The results indicated there was a significant difference in the reading self-efficacy scores of students enrolled in general education English classes and students enrolled in dual enrollment English classes, $F(1, 186) = 30.99$, $p < .001$. A medium effect size ($\eta^2 = .14$) was found. The null hypothesis of no difference in reading self-efficacy scores based on course enrollment was rejected. The mean self-efficacy score for students enrolled in general education English classes *(M* = 58.70, *SD* = 10.636) was lower than for students enrolled in dual enrollment English classes (*M* = 68.17, *SD* =8.599). Thus, dual enrollment students had higher reading self-efficacy. See Table 5 for Tests of Between-Subject Effects.

Table 5

Tests of Between-Subject Effects

Source	Type III Sum of Squares	*df*	Mean Square	*F*	Sig.	Partial Eta Squared
Corrected Model	4473.763[a]	3	1491.254	16.630	.000	.211
Intercept	641540.236	1	641540.236	7154.385	.000	.975
Gender	308.667	1	308.667	3.442	.065	.018
Enrollment	2779.180	1	2779.180	30.993	.000	.143
Gender * Enrollment	43.021	1	43.021	.480	.489	.003
Error	16678.790	186	89.671			
Total	803879.000	190				
Corrected Total	21152.553	189				

[a] $R^2 = .211$ (Adjusted $R^2 = .199$)

Null Hypothesis Two

The second null hypothesis stated there is no significant difference in reading self-efficacy scores of male and female students enrolled in English classes. This hypothesis was analyzed using a two-way ANOVA at an alpha level of .05. The results from the two way ANOVA indicated there was no statistically significant difference in the reading self-efficacy scores of males and females, $F(1, 186) = 3.44$, $p = .07$. A small effect size ($\eta^2 = .02$) was found. The mean reading self-efficacy score for male students ($M = 61.37$, $SD = 11.257$) was lower compared than female students ($M = 67.00$, $SD = 9.071$). The null hypothesis stating there is no difference between the reading self-efficacy scores of male and female students failed to be rejected.

Null Hypothesis Three

The third null hypothesis maintained there is no significant interaction between male and female students who are enrolled in general education English classes and male and female students enrolled in dual enrollment English classes. A two-way ANOVA at an alpha level of .05 was conducted to evaluate the effects of gender and class enrollment on students' reading self-efficacy. There was no statistically significant interaction between gender and class enrollment on students' reading self-efficacy scores, $F(1, 186) = .48$, $p = .49$, partial $\eta^2 = .003$. A small effect size ($\eta^2 = .003$) was found. As a result, the null hypothesis of no interaction between gender and class enrollment on students' reading self-efficacy failed to be rejected.

CHAPTER FIVE: CONCLUSIONS

Overview

The purpose of this quantitative, causal-comparative study was to investigate if there were differences in the reading self-efficacy of male and female senior high school students who were enrolled in general education English classes compared to male and female senior high school students enrolled in dual enrollment English classes. The goal of the present study was to fill the gap in the literature regarding potential differences in reading self-efficacy based on English course placement and to help inform educators and school administrators on how course placement can impact students' reading self-efficacy and the consequences associated with high and low levels of self-efficacy. Students' gender and course placement were the independent variables, and students' reading self-efficacy was the dependent variable. Chapter Five will present a conclusion of the results obtained in the study and a discussion of the study's results, in addition to the implication of those results, the study's limitations, and recommendations for future research.

Discussion

The purpose of this quantitative, causal-comparative research study was to determine if there was a difference between the reading self-efficacy of male and female senior high school students enrolled in general education English classes compared to male and female students enrolled in dual enrollment English classes. This study fills the gap in the reading self-efficacy literature, as it is the first to investigate potential differences in high school students' reading self-efficacy based on English course placement.

The literature reviewed for this study highlighted the need for more research investigating self-efficacy in the domain of reading in the secondary classroom. Much of the previous

research has examined students' self-efficacy in the domains of math (Butz & Usher, 2015; Cooper et al., 2014; Parker et al., 2014; Rabiner et al., 2016; Usher et al., 2018; Usher & Pajares, 2008, 2009) and science (Britner & Pajares, 2006; Jansen et al., 2015; Usher et al., 2018), and a considerable amount of research has been conducted with elementary and middle school students (Britner & Pajares, 2006; Butz & Usher, 2015; Guthrie et al., 2007; Joët et al., 2011; Lesnick et al., 2010; Liew et al., 2008; Nelson & Manset-Williamson, 2006; Shell et al., 1995). The previous investigations leave a critical gap in the research regarding high school students' reading self-efficacy.

A considerable body of research confirms the importance of literacy skills to students' academic performance (Ari, 2011; Clemens et al., 2016; Cunningham & Stanovich, 1998; Melekoglu, 2011; Moats, 2001; Snow & Matthews, 2016). Failure to develop proficiency in literacy can place students on a long-term trajectory to failure, including but not limited to low levels of self-efficacy, which can have a detrimental impact on students' success. Research clearly demonstrates that students' self-efficacy beliefs help determine the activities students choose to participate in, the amount of effort they will exert in those activities, and their perseverance and resiliency in the face of obstacles (Bandura, 1986, 2001; Pajares, 1996; Sanders-Reio et al., 2014).

Recent research has shown that dual enrollment courses, those through which students can simultaneously earn high school and college credit (Pierce, 2017), are advantageous to students' academic success, both in high school and their postsecondary education. Some of the benefits of dual enrollment include cost-effectiveness (An, 2013; Hoffman et al., 2009; Ozmun, 2013), an increase in students' academic performance (Allen & Dadgar, 2012), and increased retention and degree completion (An, 2013; Giani et al., 2014; Grubb et al., 2017), among others.

However, the research findings regarding the possible benefits of dual enrollment are inconclusive, as additional studies highlight the inequity in dual enrollment participation (Pretlow & Wathington, 2014; Taylor, 2015) and suggest that dual enrollment can negatively affect students' grade point averages (Kanny, 2015). With nearly two million students participating in dual enrollment coursework each year (Cowan & Goldhaber, 2015), it is imperative that additional research be conducted to elucidate its benefits and drawbacks.

The current study utilized the Self-Efficacy for Reading survey (SER) developed by Prat-Sala and Redford (2010). The instrument contains twelve statements regarding students' beliefs in their ability to successfully complete tasks associated with academic reading. Each statement is scored on a 7-point Likert scale, with 1 indicating *Not Well at All* and 7 indicating *Extremely Well.* The lowest possible score is 12, indicating low levels of reading self-efficacy, with the highest possible score being 84, indicating high levels of reading self-efficacy.

The first research question hypothesized that there was no significant difference in the reading self-efficacy of students enrolled in general education English classes compared to those enrolled in dual enrollment English classes. The results of this study indicated there was a statistically significant difference, so the null hypothesis was rejected, as students who were enrolled in dual enrollment classes reported higher levels of reading self-efficacy ($M = 68.17$, $SD = 8.599$) as compared to students taking general education courses ($M = 58.70$, $SD = 10.636$). These results confirm previous research findings regarding self-efficacy and academic proficiency. Considering the fact that many schools require a minimum GPA or placement test score to participate in dual enrollment courses (Pretlow & Wathington, 2014), it can be inferred that more academically proficient students participate in dual enrollment classes, while students who struggle academically will more likely be enrolled in general education English classes. In

their study investigating the differences in self-efficacy among college students enrolled in developmental reading courses, Cantrell et al. (2013) found that students enrolled in remedial reading classes exhibited lower levels of reading self-efficacy compared to their peers. When students are placed in remedial English classes, it is because they have struggled with some aspect of the curriculum. At the lower levels, this may be because students struggle with letter identification or decoding words in text; at the higher levels, students may be placed in remedial English classes because they struggle with foundational skills or with comprehending the material. Because of these persistent difficulties, students have more failures that contribute to negative mastery experiences. Additionally, they may have fewer or more negative social persuasions in the form of positive feedback from peers, teachers, and parents. Both of these sources of self-efficacy contribute to an increase in physiological responses. Students who have struggled with mastering reading-related tasks will likely experience increased anxiety and frustration when faced with reading tasks. Unfortunately, these reduced levels of reading self-efficacy were also evident in personal contexts, not just academic contexts. Similarly, Boakye's (2015) study of 1,816 first-year college students found that those students who had been perceived to be struggling readers exhibited lower levels of self-efficacy, while students who had been labeled as low risk for academic failure displayed higher levels of self-efficacy. More significant, perhaps, is the finding that when students' reading self-efficacy beliefs were high, their reading proficiency was also high (Boakye, 2015).

In this study, students who were enrolled in dual enrollment classes reported higher levels of reading self-efficacy. This may be due to the fact that students enrolled in these classes have had and continue to have more positive mastery experiences, social persuasions, and vicarious experiences, in addition to fewer physiological responses. Students who participate in dual

enrollment classes are generally higher performing students, as in most cases, students must have a minimum GPA or earn a minimum score on a placement exam to participate in dual enrollment classes. The reading-related successes these students have encountered make positive contributions to their self-efficacy through mastery experiences. It is also reasonable to conclude that students enrolled in dual enrollment courses have received positive feedback throughout their education because of the success they have enjoyed in reading. Success at reading-related tasks, combined with positive feedback from significant individuals, will lead to fewer physiological responses. Proficient and advanced readers are less likely to experience anxiety and frustration with reading because their previous experiences inform them of their potential for success on current and future reading activities. Bandura's (1986) last source of self-efficacy is vicarious experiences, and students participating in dual enrollment classes have an abundance of positive vicarious experiences because they are enrolled with other proficient or advanced readers. Consequently, they have numerous occasions to see their peers be successful at reading-related tasks, thereby enhancing their belief that they can also be successful at similar tasks.

The opposite is true for students enrolled in general education English classes. While some students who are enrolled in general education English classes are proficient or even advanced readers, many students are considered struggling readers. Naturally, when students struggle, they are confronted with fewer mastery experiences, which can lead to lower levels of self-efficacy. They are also less likely to receive positive feedback from significant individuals and may experience heightened physiological responses. Because of their difficulties and failures with reading, struggling readers are more likely to experience anxiety and frustration, which can cause them to avoid the tasks and effort necessary to be successful at reading-related tasks. Finally, students who are enrolled in general education English classes are likely to have

more negative vicarious experiences. Because more struggling students are enrolled in general education English classes, students will be less likely to see their classmates succeed at reading, thereby decreasing their self-efficacy for similar tasks.

The second and third research questions included the additional independent variable of gender. The second question examined potential differences in reading self-efficacy between males and females, while the third question examined whether or not there was an interaction effect between gender and course enrollment on reading self-efficacy. While the results of the two-way ANOVA indicated that female students displayed higher levels of reading self-efficacy than male students, it was not a statistically significant difference. This finding aligns with previous research that has found no differences in the self-efficacy beliefs between males and females (Britner & Pajares, 2006; Hampton & Mason, 2003; Usher & Pajares, 2006). However, studies conducted by Hampton and Mason (2003) and Usher and Pajares (2006) investigated the academic self-efficacy of students, so the current findings add to the current body of knowledge, as they pertain to a specific academic domain of reading.

With that being said, research findings regarding potential gender differences in self-efficacy have been inconsistent, so the current findings contradict a portion of the available research as well. Several studies have produced results that show there is, in fact, a difference in the self-efficacy of male and female students (D'Lima et al., 2014; Huang, 2013; Lloyd et al., 2005). Some of these differences, however, emerge when examining the sources of self-efficacy and the use of self-regulation strategies. Clearly, these discrepancies highlight the need for additional research that can investigate reading self-efficacy that includes the sources of reading self-efficacy and the use of self-regulation strategies among male and female students. Additionally, the results of the study failed to reject the hypothesis that there was no significant

interaction of gender and course placement on students' reading self-efficacy. Consequently, class enrollment explains the differences in reading self-efficacy, with gender not making a significant contribution.

Implications

The results of this quantitative, causal-comparative research study of the reading self-efficacy of senior high school students enrolled in different types of English classes augments the current body of knowledge regarding reading self-efficacy. This study provides a unique look into how reading self-efficacy may differ among students enrolled in general education English classes compared to students enrolled in dual enrollment English classes, an area that has not been previously addressed in research.

Students' self-efficacy has been found to be a key determinant to their academic success (Fenning & May, 2013; Honicke & Broadbent, 2016; Rabiner et al., 2016). Students with high levels of self-efficacy are more likely to choose more challenging tasks, persevere in the face of difficulties, and persist to completion, whether it is as small as a class assignment or as significant as a diploma or degree. Consequently, it is imperative to continue investigating self-efficacy as it relates to academics and specific academic domains. This study accomplishes the latter by contributing to the body of knowledge on self-efficacy and filling a gap in the literature regarding differences in students' reading self-efficacy based on course placement. The results of this study suggest that students who are enrolled in general education English classes have lower levels of reading self-efficacy than their peers who are enrolled in dual enrollment English classes. Given the importance of reading to students' academic success, it would be beneficial for reading instruction to also focus on enhancing students' self-efficacy in general education

English classes. This can include explicit instruction in reading strategies in order to provide students with the necessary skills to be successful at this critical task.

Additionally, previous research has illuminated the obstacles many students face as they make the transition from high school to a postsecondary institution (Cooper, 2017; Grubb et al., 2017; Jones, 2017; Logue et al., 2016). These difficulties include increased placement in remedial coursework, which some argue is "antithetical to timely completion" (Grubb et al., 2017, p. 81) and low retention and completion rates. However, there is research that supports the assertion that students who participate in dual enrollment courses are likely to benefit in numerous ways, including higher grade point averages and degree attainment, both in high school and college. It is important to understand, however, that participation in dual enrollment classes is almost exclusively voluntary; students in the majority of schools have to have earned a minimum GPA or pass an entrance exam. With that in mind, school administration, including school counselors and course advisors, can encourage more students to participate in dual enrollment classes. Indeed, there are many high-performing students in general education English classes who may benefit from being placed in dual enrollment courses instead. Not only could this help them in high school, but it could also help place them on a positive academic trajectory as they move on to their postsecondary educations.

Finally, research has demonstrated that classroom teachers have the ability to enhance students' self-efficacy, especially for students who tend to struggle in the area of reading (Cantrell et al., 2013). Findings such as those in the current study emphasize the fact that students in general education classes have lower levels of self-efficacy, so teachers should focus on increasing student's self-efficacy through their interactions with the students. This can include providing explicit instruction in reading strategies to enable students to feel more

confident in their abilities. Assignments can also be designed to increase students' mastery experiences, while at the same time, decreasing their physiological responses to reading-related activities. Finally, teachers can become more aware of the power their words carry. Research conducted by Muntoni and Retelsdorf (2018) found that students' self-efficacy can be enhanced when teachers express their view that they can do well on classroom assignments and assessments. Although this may sound simple, when a teacher tells a student he believes in him, that alone can increase that student's self-efficacy.

Limitations

The results of this quantitative, causal-comparative study investigated the differences in reading self-efficacy of male and female senior high school students enrolled in one of two English classes: general education or dual enrollment. Although the study fills the gap in the research regarding differences in reading self-efficacy based on course placement, there are limitations that need to be addressed. There are three specific limitations to this study: the sample population, the researcher, and the Self-Efficacy for Reading survey.

The first limitation relates to the sample population. Primarily, the study lacked diversity in that it only utilized students from two public school districts in rural southwest Virginia. As discussed in Chapter Three, there is little racial or ethnic diversity in either School District, with 95.7% of the student population in School District 1 reporting they are White, and 98.2% of the population in School District 2 reporting they are White. Additionally, the student population survey only consisted of senior high school students. Consequently, the results of this study cannot be generalized to other school settings or student populations.

The second limitation concerns the instrument utilized in the study. The Self-Efficacy for Reading survey developed by Prat-Sala and Redford (2010) was selected because of its

reliability, brevity, and ease of implementation. Prat-Sala and Redford (2012) reported alpha coefficients ranging from 0.881 to 0.897 for the survey, which indicate the instrument is reliable. Additionally, with only 12 survey items, the survey was ideal to use with senior high school students who sometimes feel overwhelmed and apathetic at the end of their senior year in high school. It was also an optimal survey for classroom teachers who, similarly, feel overwhelmed at the end of the school year with trying to finish up classroom instruction. Despite the validity of using the SER, there is a possibility that another instrument would have provided more insightful results.

Recommendations for Future Research

The recommendations for future research stem primarily from the limitations outlined in the previous section. The following are recommendations for studies that can build on the existing study and add to the body of research:

1. Conduct the current study utilizing students enrolled in private and charter schools and those schools located in urban areas.
2. Incorporate additional variables, such as students' grade point average and sources of self-efficacy to make the results more thorough and insightful.
3. Include a more diverse student population in regard to race and ethnicity.
4. Conduct the current study with students in Grades 9 through 11 and with class levels associated with those grades. For example, differences in reading self-efficacy can be assessed for students enrolled in general education English classes and students enrolled in advanced level English classes.

Conclusion

It has been well documented in the literature that students' reading proficiency and self-efficacy are critical to their academic success. However, as students advance through high school and prepare for their postsecondary educations, many are encountering hurdles that can prevent them from attaining a degree. As such, it is imperative that research continues to investigate students' success, which includes reading proficiently and enjoying high levels of self-efficacy. The present study adds to the small, yet growing, body of knowledge regarding students' reading self-efficacy as it relates to course placement. Its findings suggest that students who are enrolled in dual enrollment classes report higher levels of self-efficacy than students who are enrolled in general education English classes, an important discovery that can help inform educational practice and guide future research.

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APPENDIX A: IRB Approval

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

April 9, 2019

Carrie Marie Deel
IRB Approval 3706.040919: Causal-Comparative Study of Reading Self-Efficacy of Senior High School Students Based on English Course Placement

Dear Carrie Marie Deel,

We are pleased to inform you that your study has been approved by the Liberty University IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s):

> Your study involves surveying or interviewing minors, or it involves observing the public behavior of minors, and you will participate in the activities being observed.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

[redacted]

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

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APPENDIX B: Self-Efficacy for Reading Survey

Class Enrollment (Circle One) **Biological Sex (Circle One)**

General Education Dual Enrollment Male Female

Each statement in this questionnaire refers **to your beliefs about your ability** in various activities associated with **reading** in educational settings. Please rate how well you can do the things described below by **circling** one of the seven responses to the statement. Do not spend too much time thinking about each answer; just answer according to your **initial thoughts and beliefs.**

1	2	3	4	5	6	7
Not well at all						**Extremely well**

1. How well can you identify all the key points when reading a journal article or academic book?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. How well can you understand a journal article or academic book if you put a lot of effort into it?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. While reading an article, how well can you identify other relevant references, which you consider may be of further interest to read?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. After you have read a text, how well can you answer questions on it?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. How well can you understand the meaning of each sentence when you read?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. How well can you recall the most important points? (e.g., development of an argument) when you have finished reading a journal article or book chapter?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7. Before you critically evaluate a statement, how well have you understood its meaning?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. How well can you search effectively for relevant background reading when writing an essay?	**1**	**2**	**3**	**4**	**5**	**6**	**7`**
9. When reading, how well can you make notes in your own words?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
10. If you cannot understand an academic text, how well can you understand it if you listen to a lecture about it?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
11. How well can you use a variety of different methods to enable your understanding of a book chapter or journal article? (e.g., highlighting, underlining, etc.)	**1**	**2**	**3**	**4**	**5**	**6**	**7**
12. How well can you select the most appropriate reading from a number of relevant articles and books?	**1**	**2**	**3**	**4**	**5**	**6**	**7**

APPENDIX C: Permission to Use Survey

Re: Request to Use Self-Efficacy in Reading and Self-Efficacy in Writing instruments

Deel, Carrie Marie

Mon 2/12/2018 4:13 PM

Sent Items

To:Merce.Prat-Sala <Merce.Prat-Sala@winchester.ac.uk>;

Dr. Prat-Sala,
Thank you so much for allowing me to use the instrument you designed. I very much appreciate it, and I hope that you are beginning to feel better.

Thank you again!
Carrie

From: Merce.Prat-Sala <Merce.Prat-Sala@winchester.ac.uk>
Sent: Monday, February 12, 2018 6:02:13 AM
To: Deel, Carrie Marie
Subject: RE: Request to Use Self-Efficacy in Reading and Self-Efficacy in Writing instruments

Dear Carrie,

Thanks for your email and for your interest on the self-efficacy scales. I apologise for not replying earlier but I have been unwell for a while. Please feel free to use these scales and let me know if there is anything I can help you with.

Good luck with your research and very best wishes,
Merce

From: Deel, Carrie Marie [cmdeel@liberty.edu]
Sent: 03 February 2018 18:47
To: Merce.Prat-Sala
Subject: Request to Use Self-Efficacy in Reading and Self-Efficacy in Writing instruments

Dr. Prat-Sala,
I am a doctoral student at Liberty University in Lynchburg, Virginia, and am looking to investigate the self-efficacy of 12th-grade students enrolled in regular English courses compared to students enrolled in Dual Enrollment English courses. I found your self-efficacy instruments and am writing to request permission to use them for my research study.

Please feel free to contact me with any questions you have regarding my study. I appreciate your willingness to consider this request.

Sincerely,

Carrie Deel

APPENDIX D: Permission to Modify Survey

Re: Self-Efficacy for Reading Instrument

Paul Redford <Paul2.Redford@uwe.ac.uk>

Fri 4/13/2018 9:48 AM

To:Deel, Carrie Marie <cmdeel@liberty.edu>;

Dear Carrie,

Of course, I am happy for you to make those changes. They seem very sensible.

Good luck with your research.
Paul

Dr Paul Redford
Associate Professor (Teaching & Learning)
Co-Director MSc Occupational Psychology

Psychology
UWE Bristol
BS16 1QY
[redacted]
paul2.redford@uwe.ac.uk

From: Deel, Carrie Marie <cmdeel@liberty.edu>
Sent: 13 April 2018 13:22:28
To: Paul Redford
Subject: Self-Efficacy for Reading Instrument

Good morning, Dr. Redford,
Again, I would like to thank you so much for allowing me to use this instrument for my dissertation research and also for being so quick to respond and help me with my questions.

I have one additional request regarding your SER instrument, and I am writing to request your permission to make some minor changes. First of all, I am completing my research with high school seniors; consequently, they are not yet in a higher education system. May I change the wording at the beginning of your instrument to read "Each statement in this questionnaire refers to your beliefs about your ability in various activities associated with reading in educational settings"?

Secondly, item number 3 begins with the word "Whilst," which is not common terminology in the United States. May I change this to "While"? Although the meaning is the same between the two words, I can foresee some issues arising with this word that is, for the most part, unfamiliar to our students.

I hope you will consider these requests, as I don't believe they significantly change the instrument or pose any kind of issues for my study.

Thank you and have a great day,

APPENDIX E: Permission to Reprint Survey

Re: Permission to Reprint Self-Efficacy for Reading Survey

From: Paul Redford <Paul2.Redford@uwe.ac.uk>
Sent: Thursday, June 6, 2019 4:10 AM
To: Deel, Carrie Marie
Subject: Re: Permission to Reprint Self-Efficacy for Reading Survey

Dear Carrie,

Thank you for your email, and yes I am very happy to grant permission for you to use the Self-Efficacy for Reading survey. I hope your research has gone well.

Good luck defending your dissertation.

Bye for now,
Paul

Dr Paul Redford
Associate Professor
Co-Director MSc Occupational Psychology

Psychology
UWE Bristol
BS16 1QY
[redacted]
paul2.redford@uwe.ac.uk
Please note I work at UWE four days a week

From: Deel, Carrie Marie <cmdeel@liberty.edu>
Sent: 05 June 2019 22:01:26
To: Paul Redford
Subject: Permission to Reprint Self-Efficacy for Reading Survey

Good evening, Dr. Redford,
In April of 2018, you gave me permission to use your Self-Efficacy for Reading survey in my study on the differences in reading self-efficacy of senior high school students based on English course placement. Next Wednesday, June 13th, I am defending my dissertation and am also preparing to submit my dissertation for publication.

I have been informed that in order to include your survey in my Appendices, I need to have your permission to reprint it. It will only be used in my dissertation, and I have no plans to use it for anything else. If you grant me permission to reprint your survey in the appendices of my dissertation, could you please reply to this email indicating that permission is granted?

Thank you,
Carrie Deel

APPENDIX F: Teacher's Script for Informing Students of Survey

Causal-Comparative Study of Reading Self-Efficacy
of Senior High School Students
Based on English Course Placement

Carrie Marie Deel
Liberty University
School of Education

Teacher's Script for Informing Students of the Study

Please read the following script word-for-word to students in each senior English class:

"We have been invited to participate in a research study on reading self-efficacy. Self-efficacy is defined as one's belief in his or her ability to successfully complete a task. If you agree to participate in this study, you will help the researcher determine if there is a difference in students' reading self-efficacy depending on their English course placement.

"You are being asked to participate in this study because you are a senior high school student who is enrolled in either a general education English class or dual enrollment English class during the spring, 2019 semester. Students who participate in the study will be asked to complete a short, 12-question survey regarding reading self-efficacy. This survey should take approximately 10–15 minutes to complete.

"I will be handing out an opt-out form to those students who are under the age of 18. You will only need to have this form signed by your parents and returned to me if they do NOT want you to participate in the study.

"This form will explain the survey and inform you of your right to not participate in the study. Completing the survey will indicate your assent/consent to participate. Each student who completes the survey will be entered into a drawing to win a $25 Visa gift card.

"If you have any questions regarding the survey, please direct them to the researcher who can be contacted at cmdeel@liberty.edu."

APPENDIX G: Opt-Out Form

The Liberty University Institutional
Review Board has approved
this document for use from
4/9/2019 to 4/8/2020
Protocol # 3706.040919

OPT-OUT FORM

Causal-Comparative Study of Reading Self-Efficacy of Senior High School Students Based on English Course Placement

Carrie Marie Deel
Liberty University
School of Education

Your child is invited to be in a research study on reading self-efficacy. He or she was selected as a possible participant because of his or her current enrollment in a senior English course. Please read this form and **sign it only if you do NOT want your child to participate.**

Carrie Marie Deel, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to investigate potential differences in reading self-efficacy of students enrolled in two different English classes during their senior year, specifically general education English classes or dual enrollment English classes. The research question for this study is as follows: Is there a difference between the reading self-efficacy of male and female senior students enrolled in general education English courses compared to male and female senior students enrolled in dual enrollment English courses?

Procedures: If you agree to allow your child to be in this study, I would ask him or her to do the following things:

1. Complete a short, 12-item survey regarding his or her reading self-efficacy beliefs. This should take no longer than 15 minutes to complete.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Benefits: Participants should not expect to receive a direct benefit from participating in this study.

Benefits to society include a deeper understanding of students' reading self-efficacy. The results of this survey could help inform classroom practices that can increase students' self-efficacy, and thereby, improve students' academic success.

Compensation: Your child may be compensated for participating in this study. Your child will be entered to win one of four $25 Visa gift cards if he or she completes the survey. One winner from each of the four participating schools will be drawn at random within one week of survey completion and collection.

Confidentiality: The records of this study will be kept private. Research records will be stored securely and only the researcher will have access to the records.

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- Participant survey responses will remain anonymous. The survey will be administered in your child's regular English class.
- Data will be stored on a password-protected computer and may be used in future presentations. After three years, all electronic records will be deleted.

Conflicts of Interest: Some students are enrolled in the researcher's dual enrollment course. However, the researcher serves as a proctor in this class and has no influence regarding the grades the students receive. Students in this course retain the same right to choose not to participate in the study without fear of consequence.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to allow your child to participate will not affect his or her current or future relations with his or her current high school or Liberty University. If you allow your child to participate, he or she is free to not answer any question or withdraw at any time, prior to submitting the survey, without affecting those relationships.

How to Withdraw from the Study: If your child chooses to withdraw from the study, your child should inform the teacher that he or she wishes to discontinue participation prior to submitting the study materials. Your child's responses will not be recorded or included in the study.

Contacts and Questions: The researcher conducting this study is Carrie Deel. If you have questions, **you are encouraged** to contact her at [redacted] or cmdeel@liberty.edu. You may also contact the researcher's faculty advisor, Dr. Meredith Park, at mjpark@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Green Hall 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Opt-Out Statement: I have read and understood the above information. I have asked questions and have received answers.

My signature below indicates that I do NOT want my child to participate in this study.

Signature of Parent Date

Signature of Investigator Date

APPENDIX H: Student Assent/Consent Form

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ASSENT/CONSENT FORM

Causal-Comparative Study of Reading Self-Efficacy of Senior High School Students Based on English Course Placement

Carrie Deel
Liberty University
School of Education

You are invited to be in a research study investigating potential differences in students' reading self-efficacy based on English course placement. You are being asked to participate in this study because you are a senior high school student who is enrolled in an English class during the Spring, 2019 semester. Please read this form and ask any questions you may have before agreeing to be in the study.

Carrie Deel, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to investigate the potential differences in students' reading self-efficacy based on English course placement. For the purpose of this study, self-efficacy refers to your belief in your ability to successfully read and comprehend academic texts.

Procedures: If you agree to be in this study, you will be asked to do the following:

1. Fill out the short, 12-item survey on the next page. This survey should take no longer than 10-15 minutes to complete. Upon completion of the survey, please place it in the envelope you have been provided, seal it, and turn it in to your classroom teacher.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Benefits: Participants should not be expected to receive a direct benefit from taking part in this study.

The benefits to society include a deeper understanding of students' reading self-efficacy as it pertains to course placement. Findings from this study can inform educational and classroom practices to enhance students' success in the classroom.

Compensation: Participants will not be compensated for participating in this study. However, each student who completes the survey will be entered for a chance to win one of four $25 Visa gift cards. One student from each of the four participating high schools will win a gift card.

Confidentiality: The records of this study will be kept private. Research records will be stored securely, on a password-protected computer, and only the researcher will have access to the

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records. After three years, all electronic data will be deleted, and all hard copy data will be shredded. Participant responses to the survey will remain anonymous.

Conflicts of Interest Disclosure: The researcher serves as a dual enrollment proctor at Central High School. To limit potential conflicts, the study will be anonymous, so the researcher will not know who participated. This disclosure is made so that you can decide if this relationship will affect your willingness to participate in this study. No action will be taken against an individual based on his or her decision to participate in this study.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or the high school in which you are currently enrolled. If you decide to participate, you are free to not answer any question or withdraw at any time, prior to submitting the survey, without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw, simply inform your teacher that you wish to discontinue your participation and return your survey to your teacher without completing it. Your responses will not be recorded or included in the study.

Contacts and Questions: The researcher conducting this study is Carrie Deel. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at [redacted] or by email at cmdeel@liberty.edu. You may also contact the researcher's faculty chair, Dr. Meredith Park, at mjpark@liberty.edu.

If you have questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

APPENDIX I: Instructions for Administering the Survey

Reading Self-Efficacy of General Education English Students and Dual-Enrollment English Students

Carrie Marie Deel
Liberty University
School of Education

Instructions for Administering the Survey

Please read the following script word-for-word to students in each senior English class:

"Today, students who have agreed to participate in the reading self-efficacy study will complete the survey. If you have not turned in your consent form to participate in the survey, please take out other homework to work on or a book to read while your classmates are completing the survey. This should take approximately 10–15 minutes.

"I will be passing out a survey, a pencil, and an envelope to each student who has turned in a consent form. Each statement in this questionnaire refers to your beliefs about your ability in various activities associated with reading in educational settings. Please rate how well you believe you can do the things described below by circling one of the seven responses to the statement. One indicates you do not believe you can do it very well, and seven indicates you believe you can do it extremely well. Do not spend too much time thinking about each answer; just answer according to your initial thoughts and beliefs.

"When you are finished, please fold your survey, place it in the envelope you've been given, seal it, and turn it in to me. You may then take out a book or other homework you may need to complete. Thank you for agreeing to participate."