THE EFFECTIVENESS OF INDEPENDENT READING AND SELF-SELECTED TEXTS ON ADOLESCENT READING COMPREHENSION: A QUANTITATIVE STUDY

by

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Liberty University

A Dissertation Presented in Partial Fulfillment Of the Requirements for the Degree Doctor of Education

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February, 2014
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ABSTRACT

Striving adolescent readers often find themselves with little or no support once they enter high school. The success of independent reading programs that target students’ reading levels and accommodate student interest at the elementary level is well-documented. As students progress throughout their school years, such freedom is traditionally replaced with a strict adherence to lists of canonical classics of literature, most of which are well above a struggling reader’s independent reading level. This study explored the value of such an independent reading program that addresses both student interest as well as student reading ability at the secondary level and sought to determine its influence upon adolescent reading achievement. This study compared/contrasted the effectiveness of incorporating an independent reading program into the 8th grade English curriculum to that of a more traditional English curriculum. The study took place at three public schools within Central Virginia and a causal/comparison design was used.

*Keywords:* adolescent literacy, independent reading program, metacognitive reading strategies, adolescent attitudes toward reading, Accelerated Reader.
ACKNOWLEDGEMENTS

I would first like to thank God for helping me through this dissertation process. He has never left my side during the ups and downs of this whole process. He has calmed my fears, eased my frustrations, settled my nerves, and strategically placed certain people in my path precisely at the right moments.

I dedicate this dissertation to my parents, Sherman and Sally Moore, who instilled in me the value of an education from the time I was born. Though they themselves were never afforded the opportunity to attend college, they nevertheless stressed the importance of a college education throughout my childhood, and it is because of them that I have pursued higher degrees. To my husband, Brian, who has seen me through (and helped pay for) a bachelor’s degree, two masters degrees, and educational specialist degree, and now a doctorate degree, I say thank you. You have shown tremendous patience over the last twenty years, and in particular, the last two and a half years, during the course of this dissertation process. To my two children, Rachel and Luke, thank you for putting up with your mom going to school your entire lives. I hope and pray that you find your passion through your work and that you use your own talents to help improve the lives of others.

To my dissertation chair, Karla Swafford, thank you. You came on board and took over as chair when my project had been dropped by my first chair. Despite having an extremely busy schedule yourself, you never failed to make yourself available to me. Your positivity kept me going through some very frustrating times, and I am so appreciative for all the guidance you provided. To my committee members, Amanda Dunnagan and Paula Gastenveld, thank you so much for your willingness to serve on my dissertation committee. Your assistance has helped make a lifelong dream come true.
Finally, to all of the struggling students I have taught over the past 20 years, thank you. You helped me find my purpose in life. You made me reach deeper inside myself, place myself in someone else’s shoes, and realize that the very act of reading does not come easily to everyone. Your courage to face your area of weakness and give it your all to succeed has touched my heart more times than I can count over the years. It is for you that I continue to read educational journals, attend conferences, and strive to find ways that can open up the magical world of reading to you.
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CHAPTER 1: INTRODUCTION

“When I was growing up, my parents told me, ‘Finish your dinner. People in China and India are starving.’ I tell my daughters, ‘Finish your homework. People in India and China are starving for your job’” -- Thomas Friedman

Thomas Friedman’s *The World is Flat* (2005) describes the globalization of the world in the 21st century and how this “flattening of the world” has led to demands for a more sophisticated workforce, thus raising the standards for education throughout the country. These new, more rigorous standards in education can be seen through educational policies such as the national Common Core standards (2010) and Virginia’s new Standards of Learning (2010).

Because of these more rigorous academic standards, secondary schools in Virginia and across the nation will be searching for ways in which to raise reading achievement and improve literacy.

Reading instruction at the secondary level has become a major issue for many school districts across the United States. When faced with the pressures of high-stakes testing within the content area classroom, many secondary teachers do not consider reading instruction their responsibility. As a result, many students graduate from high school and enter either college or the nation’s workforce without possessing the literacy skills necessary to be successful (Collins, Onwuegbuzie & Qun, 2008; Peterson, Woessmann, Hanascheck & Lastra-Anadon, 2011; Simsek & Balaban, 2010; Voge, 2011). With the concentration of reading specialists and coaches remaining at the lower grade levels, many secondary and post-secondary school administrators face the challenge of improving student reading performance without having a reading background (Nash-Dietzel, 2010; Ness, 2007; Pang, 2009). While most secondary educators are considered to be content experts, they lack the formal training to instruct their adolescent students in reading (Diamond, 2006; Santa, 2006). The No Child Left Behind Act (2001) and
implementation of the Common Core Standards (2010) have forced secondary administrators throughout the United States to take a closer look at the literacy weaknesses of their students.

**Background**

In the majority of both secondary schools and post-secondary schools, there exists struggling readers. All too often students reach their middle school years without knowing how to read fluently or strategically (Brinda, 2008; Fleming et al., 2007; Jacobs, 2008; Harmon, Hedrick, Wood & Vintinner, 2011). Many educators assume that students learn to read in elementary school and read to learn in secondary schools; unfortunately, this is not always true. According to Curtis and Kruidenier (2005), one out of five adolescents reads two or more years below grade level, and such students read very slowly, averaging less than 100 words per minute. At some point in their education, the vast majority of students will struggle with the complex, challenging material presented in the upper grades. Couple the increase of difficult material with a lack of sufficient reading skills, and the situation can be extremely difficult for a striving adolescent reader.

As secondary students encounter more complex reading assignments within their daily routine, those who possess deficient skills often experience other problems as well, including behavioral issues. As much of the literature points out, striving adolescent readers often experience psychological and emotional difficulties that stem from their inability to read well (Diamond, 2006; Enriquez, 2011; Fairbanks & Arial, 2006). It is of little surprise that poor reading skills affect not only the academic realm of the student, but the social, emotional, and behavioral realms as well. Studies reveal that adolescents with deficient reading skills have higher absentee rates than do their peers (Dahle, Knivsberg & Andreaseen, 2011; Goldston, Walsh & Mayfield, 2007). High absenteeism often leads to dropping out of school, which has
been linked to higher rates of suicide among young adults (Daniel et al., 2006). Despite the
horrific implications associated with adolescents who lack proficient reading skills, most middle
and high school students who have reading deficiencies will find very little reading assistance
from their teachers. Due to the extreme pressure placed upon school districts to perform well
on state assessments, schools focus primarily on subject matter, thereby leaving struggling
readers on their own to make sense of difficult material.

One method of improving literacy skills that has been widely accepted by secondary
schools involves the use of a computer-based, independent reading program that includes
student-selected books and the matching of books to students’ reading levels. One such program
in which students choose their own books is Renaissance Learning’s Accelerated Reader
program. The Accelerated Reader program, commonly referred to as AR, is a computer-based
reading management program produced by the Wisconsin educational corporation Renaissance
Learning. Through this program, students read appropriate grade-leveled books that fall within
their zones of proximal development (ZPD) and take brief, plot-based quizzes on them. Ideally,
students would take Renaissance Learning’s STAR reading assessment, which will provide
teachers with several important pieces of information, including the following: 1) scaled score,
which is determined by the difficulty of the questions and number of correct responses (scaled
scores are used to compare student performance), 2) percentile rank, which is norm-referenced
and compares students to other students in the same grade across the nation, 3) percentile rank
range, which reflects the statistical variability of the percentile rank, 4) student growth percentile,
which measures student growth between tests and compares that to students nationwide, 5) grade
equivalency, which describes how a student compares nationally, 6) functional grade level,
which places students into one of three broad categories (Below Grade Level, On Grade Level,
or Above Grade Level), 7) instructional grade level, a criterion-referenced score showing the highest reading level a student is at least 80% proficient, and 8) zone of proximal development (ZPD), a range of readability levels from which students should choose their books (Renaissance Learning, 2013). Ideally, students would read books within their ZPD, ultimately targeting the upper end of this zone (Groce & Groce, 2005; Stanfield, 2006; Thompson, Madhuri & Taylor, 2008). Although points can be accumulated for quizzes with scores as low as 60% accuracy, students should strive for a minimum of 85% accuracy. As students pass quizzes, points are accumulated and in most cases, incentives are given.

The whole face of the Accelerated Reader program has changed over the years. School divisions which purchase the server-based product, now referred to as Accelerated Reader Enterprise, pay an annual subscription fee, with access to every quiz in the AR database. Product administrators within individual schools control the accessibility of the quizzes. The initial cost of Accelerated Reader is a $2,899 one-time licensing fee per school, followed by an annual subscription rate of $5.50 per student. The initial cost to incorporate the STAR reading program into the package is a $1,599 one-time licensing fee per school, followed by an annual subscription rate of $3.60 per student.

There are several types of quizzes within the AR program. According to the website, there are over 150,000 quizzes available. The most widely purchased and utilized quiz type is known as reading practice quizzes. These quizzes contain anywhere from 5 to 20 questions, depending upon the book’s level of difficulty, and are primarily plot-based recall questions. It is through the use of reading practice quizzes that points are accumulated within the AR system. The AR system will only allow students to take reading practice quizzes once, whether they pass or fail the quiz; however, teachers do have the option of deleting quiz results if they choose to do
so. The second type of quiz available for purchase is the literacy skills quiz. These quizzes prove to be more difficult in nature, as they test higher-level thinking skills. Due to the level of difficulty of literacy skills quizzes, Renaissance Learning suggests that teachers use these quizzes for literature that have been traditionally taught within the classroom. Students taking literacy skills quizzes will not receive points for these, and the program allows the quizzes to be taken more than once. The third and final quiz type available in the AR program is the vocabulary quiz that incorporates the vocabulary found within particular titles (Renaissance Learning, 2013).

The Renaissance Learning website emphasizes the importance of reading and states that “All learning starts with reading. It’s a skill, and, as with every skill, it requires not just instruction but practice” (Renaissance Learning, 2013). Renaissance Learning claims that, through the Accelerated Reader program, teachers can motivate students and that “self-selected reading at students' independent reading levels results in success, which spurs enthusiasm, higher attendance, fewer discipline problems, and better attitudes. Students will be motivated to read constantly” (Renaissance Learning, 2013). There is little doubt that providing elementary-aged children with choices in reading material increases student motivation as well as reading achievement. When young readers are provided with a rich, wide variety of reading material, they enjoy the freedom of exploring topics that interest them (Allington, 2001; Ecklund & Lamon, 2008; Jonsson-Smaragdi & Jonsson, 2006). Thus, their attitudes toward the act of reading are often positive, and they are often willing to spend more time engaged in literary activities. Numerous studies demonstrate the positive effects of independent reading programs upon the literacy achievement of students in lower grades (Carter, 1996; Goodman, 1999; Johnson & Howard, 2003; Krashen, 2002; McQuillan, 1997; Melton et al., 2004; Nunnery, Ross
& McDonald, 2006). Sadly, as children progress through their school years, this freedom to choose their own reading material is usually replaced with strict reading requirements.

**Problem Statement**

Demands for a more sophisticated workforce are raising standards for education throughout the country. In 2010, the state of Virginia worked closely with college faculty, the College Board, ACT, American Diploma Project, and various business leaders to create new educational standards. These new standards placed a greater emphasis on nonfiction texts and content vocabulary. The state of Virginia chose to adopt their own more rigorous standards over the national standards contained in Common Core. According to Virginia’s standards, students must make inferences and draw conclusions from implied information presented. Much like the Common Core standards, Virginia’s new standards focus upon nonfiction and informational texts. As a result of these new rigorous standards, regardless of whether they are Common Core or Virginia’s individualized standards, secondary teachers must realize their responsibility in teaching reading comprehension strategies. Because of increased standards, secondary schools in Virginia and across the nation will be searching for ways in which to raise reading achievement and improve literacy.

By the time adolescents reach middle school, they usually are not afforded the opportunity to select their own books to read within their English classes. Instead, they are frequently provided with a list of canonical literary classics located within their respective anthologies (Alger, 2007; Brinda, 2008; Eckert, 2008; Harmon et al., 2011). What once was a positive attitude toward reading is now replaced with a negative attitude and the time engaged in literacy activities is dramatically reduced. Without consistent, independent reading practice at their individual reading levels, adolescents who may have once struggled somewhat during their
elementary years will likely fall further and further behind as they progress throughout their middle and high school years. With the increased expectations of student achievement that the new Common Core and other state standards bring, however, school divisions must be ever vigilant in choosing research-based practices that will yield the greatest gain in student achievement.

**Purpose Statement**

The purpose of this quantitative, causal comparative study was to determine the possible effects of participating in an independent reading program on the reading achievement of eighth graders. This information will assist schools in determining what types of literacy activities to incorporate into their traditional secondary English curriculum. The independent variable was defined as participation in the Accelerated Reader program, which is a computer-based, independent reading program that includes student-selected books and the matching of books to students’ reading levels. The dependent variable was defined as the scores of eighth grade students on the Spring 2013 Virginia Standards of Learning Grade 8 Reading Test.

**Significance of the Study**

According to *The Nation’s Report Card: Reading 2011*, only 34% of all eighth graders were able to comprehend at or above a proficient level, while 42% were able to comprehend at a basic level, thus leaving 24% at a below-basic level. Although the 2011 NAEP reading results reflect a minor increase of 1% in reading comprehension from the 2009 assessment, the fact remains that nearly 66% of our nation’s eighth grade students are not reading a proficient level. Within most school systems, literacy instruction ceases to exist after grade five, as the courses become much more content-focused. As the results from NAEP (2011) clearly indicate, the need for increased attention to adolescent literacy is vital if we are to produce functionally literate
citizens. Unfortunately, while there has been an increased focus on adolescent literacy, little empirical evidence exists on the subject of independent reading programs and self-selected books on adolescent literacy. Thus, this study investigating the effects which an independent reading program wherein students are free to choose their own reading material may have on adolescent reading achievement seeks to fill some of the gaps in the literature. This study adds to the limited base of research that currently exists on adolescents’ comprehension through the incorporation of self-selected reading materials and utilizing the concept of zone of proximal development.

The progression from primary grades to secondary grades brings with it multiple literacy caveats for students. The textual content within their prescribed reading assignments becomes more complex, and secondary teachers often expect their students to read critically, while showing an ability to interpret the literature (Eckert, 2008; Orlando, Caverly, Swetnam & Flippo, 2003). For adolescents who have spent their childhoods believing that “reading” solely involves the decoding of words, this idea of critically interpreting texts can be a foreign idea. Because of this unpreparedness to engage in literary criticism, the vast majority of secondary teachers end up interpreting the texts for students; thus, the cycle of unpreparedness continues (Eckert, 2008; Underwood & Pearson, 2004; Zhang, Fashola & Shkolnik, 2006). Somewhere along the way, students must be shown the relevance of interpretive reading and strategies for mastering such skills (Eckert, 2008; Simpson, Stahl & Francis, 2004).

There is no doubt that a high percentage of freshmen enter high school with deficient reading skills. High school students are responsible for a great amount of independent reading in order to fulfill the requirements of their courses. If the literacy problems of secondary students are not remedied before they graduate, they will not be successful in college nor the workplace. Some researchers have estimated that college students can expect to read between 600-750 pages
a semester per course (Orlando et. al., 2003). If students are ill-equipped with the skills to comprehend the required texts, then the chances of successfully completing college level assignments are slim (Gerla, 2009; Taraban, Kerr & Rynearson 2004; Voge, 2011; Willingham & Price, 2009). Surprisingly, the reading requirements for most entry-level positions within America’s workforce are greater than the reading requirements of the average college freshman (Peterson et al., 2011); thus, the issue of adolescent literacy becomes even more important for all students, regardless of what their plans are after graduation.

Research Questions and Null Hypotheses

The following questions were addressed in this study.

Research Question 1. Is there a difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program versus those 8th graders who are not participating in an independent reading program?

Null hypothesis (H₀₁). There is no statistically significant difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program versus those 8th graders who are not participating in an independent reading program.

Research Question 2. Is there a difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program when their participation is required and students are given a grade versus those 8th graders who are receiving rewards and incentives for their participation?

Null hypothesis (H₀₂). There is no statistically significant difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test
(SOL) when participating in an independent reading program when their participation is required and students are given a grade versus those 8th graders who are receiving rewards and incentives for their participation.

**Identification of Variables**

The study employed a causal comparative design in which two groups were compared. The causal comparative design was most appropriate for this study because of the study’s use of ex post facto data (SOL scores from the Spring, 2013 assessment) and the fact that the independent variable was not manipulated; it had already occurred (Ary, Jacobs, Bazavieh & Jorensen, 2006; Becker & Gersten, 1982; Campbell & Stanley, 1966; Creswell, 2008). The independent variable was defined as participation in the Accelerated Reader program, which is a computer-based, independent reading program that includes student-selected books and the matching of books to students’ reading levels. The dependent variable was defined as the scores of eighth grade students on the Spring 2013 Virginia Standards of Learning Grade 8 Reading Test.

**Overview of the Methodology**

Eighth grade populations were be chosen from the three public schools in Virginia, two of which incorporated an independent reading program into their traditional English curriculum, and one that did not. After IRB approval was obtained through Liberty University, the researcher contacted the principals from the three schools and developed a plan to gather the data from the 2013 Grade 8 Reading SOL test. The researcher met with each principal at their respective schools and was provided with copies of individual scores. After receiving the scores, the researcher entered the data into an Excel spreadsheet and copied the information to the SPSS statistical software. For research question 1, data from all three schools were entered into SPSS,
and a variable (AR or non-AR) was added to identify groups. Scores from School A (non-AR school) were compared to the combined scores of School B and School C (both AR schools). Two groups were defined within SPSS, AR and non-AR. Independent samples t tests were then run within the software program. For research question 2, data from the two AR schools were entered into SPSS, and a variable (AR-Grade or AR-Reward) was added to identify groups. Scores from School B (AR-Grade school) were compared to the scores of School C (AR-Reward school). Two groups were defined within SPSS, AR-Grade and AR-Reward. Independent samples t tests were then run within the software program.

Definitions

**Accelerated Reader** -- Commonly referred to as AR, Accelerated Reader is a computer-based reading management program. Through this program, students read appropriate grade-leveled books that fall within their ZPD (zone of proximal development) and take brief, plot-based quizzes on them. As students pass quizzes, they accumulate points. Although points can be accumulated for quizzes with scores of either 60% or 70% and above (60% for quizzes containing 5 questions; 70% for quizzes containing 10 and 20 questions), students are encouraged to strive for a minimum of 85% accuracy.

**Adequate Yearly Progress (AYP)** – An integral component of the No Child Left Behind Act (2001), adequate yearly progress is the method of measurement by which schools are held accountable for meeting student performance goals. AYP is used to determine if schools are effectively educating their students; schools must also show that subgroups of students are progressing toward meeting state standards. Although individual states are required to determine their own criteria for making AYP, states must address three distinct areas: 1) at least 95% of students take part in state assessments, 2) a certain percentage of students must show proficiency
in math and reading, as evidenced by state assessment results, and 3) pre-determined graduation rates are met.

*Common Core State Standards (2010)* – Common Core State Standards, published in 2010, are a set of national educational standards adopted by individual states in an effort to increase student preparedness for college and career. The national program usurps local control over the math and English curricula of school systems, thereby setting a national standard of education that should prepare all students for college and/or the increasingly complex global workforce. Many critics view Common Core as a national curriculum, an assertion that the program vehemently denies, describing itself instead as “a clear set of shared goals and expectations for what knowledge and skills will help our students succeed” (Common Core, 2013, para. 3). Forty-five states and the District of Columbia have adopted Common Core standards, leaving only four states, Virginia, Nebraska, Alaska, and Texas, abstaining. (Minnesota adopted the English standards but kept their own math standards).

*Grade Equivalent (G.E.)* – Grade equivalency is a norm-referenced scale that measures reading ability. It ranges from PP (pre-primer) to 12.9+ and is used by Renaissance Learning to identify student reading levels. STAR test results are compared nationally to obtain this level.

*Independent Reading Program (IRP)* – For this study, an independent reading program will be defined as a supplementary reading program wherein students choose their own reading materials based upon their personal interests. Reading materials should fall within each student’s ZPD (zone of proximal development).

*Lexile Framework for Reading* -- The Lexile Framework for Reading is a systematic structure that reveals information regarding the reading difficulty of a text or an individual’s reading ability. The system involves a number with the letter L following it (i.e. 550L may be
read as 550 Lexile). The Lexile numbering system ranges from 200L (beginning readers) to 1600L (advanced readers). Texts including books, magazine articles, newspaper articles, and other types of texts are analyzed by MetaMetrics and are assigned a number based upon word frequency and sentence length, two predictors of how difficult a text may be to comprehend. In order to promote reading comprehension, individuals should select texts that are located near their individual Lexile scores, specifically 100L below to 50L above their actual measurements. Lexile measurements are reported with the scores of students taking Virginia’s Standards of Learning reading tests in grades 3-8. Thus, Lexile scores will be included in this particular study.

*Literacy skills quizzes.* -- Within the Accelerated Reader program, these quizzes are more difficult than reading practice quizzes, as they test higher-level thinking skills. Students taking literacy skills quizzes will not receive points for these, and the program allows the quizzes to be taken more than once.

*Metacognition* – Metacognition is the act of thinking about one’s own thought processes and is an important part of the reading process; “the extent to which a reader is aware and in control of his or her mental processes when interacting with text” (Cantrell & Carter, 2009; p. 197-8).

*Reading comprehension* – Reading comprehension is a component of literacy in which meaning is constructed from a text both literally and interpretively; as a result, a reader understands and connects to a written text (Vacca & Vacca, 2005).

*Reading practice quizzes.* -- Within the Accelerated Reader program, these quizzes contain anywhere from 5 to 20 questions, depending upon the book’s level of difficulty, and are
primarily plot-based recall questions. It is through the use of reading practice quizzes that points are accumulated within the AR system. Students may only take reading practice quizzes once.

**STAR Reading Test** – a norm-based, computerized reading test that is used in conjunction with the Accelerated Reader program; from the computer-generated results of this test, an independent reading level and the zone of proximal development are determined.

*Virginia’s College and Career Readiness Initiative (2010)* -- In 2010, the state of Virginia worked closely with college faculty, the College Board, ACT, American Diploma Project, and various business leaders, who have validated Virginia’s newly revised standards for college and career readiness. Virginia’s College and Career Readiness Initiative was designed to support two purposes: “ensure that college and career-ready learning standards in reading, writing, and mathematics are taught in every Virginia high school classroom [and] strengthen students’ preparation for college and the work force before leaving high school” (VDOE, 2010; p. 2).

*Virginia Standards of Learning (SOL)* – expectations for student learning and achievement, as agreed upon by the Virginia Department of Education and the Virginia Board of Education. New, more rigorous content standards were implemented in 2010, in an effort to increase career and college readiness. These standards placed a greater emphasis on non-fiction texts and content vocabulary. According to the new standards, students must make inferences and draw conclusions from implied information presented.

*Virginia Common Core Standards* – expectations for student learning and achievement that are derived from national standards to ensure that teaching and learning in Virginia schools meet or exceed national standards. In 2010, the state of Virginia worked closely with college
faculty, the College Board, ACT, American Diploma Project, and various business leaders. As a result, these core standards were revised in order to increase career and college readiness.

Virginia Standards of Learning Grade 8 Reading Test – a multiple choice test that Virginia’s students take near the end of 8th grade. The test includes 55 multiple choice questions derived from the 8th grade Standards of Learning. There are three reporting categories for the test, including: 1) use of word analysis strategies and word reference materials, 2) demonstration of fictional text comprehension, and 3) demonstration of nonfiction text comprehension. Of the 55 total questions, 10 are field test items and are not included in the scoring of the test. The Spring, 2013 administration of the VA SOL Grade 8 Reading Test was based upon the newly revised standards from the 2010 Standards of Learning. These standards placed a greater emphasis on non-fiction texts and content vocabulary. According to the new standards, students must make inferences and draw conclusions from implied information presented.

Vocabulary quizzes. Within the Accelerated Reader program, these quizzes incorporate the vocabulary found within particular titles and test student understanding of the vocabulary within the context of the literature.

Zone of Proximal Development – commonly referred to as ZPD, is the range between a child being able to independently learn and a child being able to learn with help from the teacher. This zone of proximal development is essential to many independent reading programs and is used to determine the reading level range in which students should be reading in order to experience the most growth. Ideally, students would read books within their ZPD, ultimately targeting the upper end of this zone.

Assumptions and Limitations

Assumptions. The researcher assumed that the teachers of these classes within School B
and School C had received training based upon Renaissance Learning’s Best Practices Methods and were using the program according to those guidelines. The researcher also assumed that both the treatment and control groups from all three schools received the same, standardized instructions and testing conditions when taking the SOL test.

**Limitations.** There were several limitations observed in the study. It is possible that students in a non-program school may have participated in an independent reading program during previous years in school. This would be a limitation because their experience with the independent reading program prior to their 8th grade year may have affected their results. Another limitation involved the use of only one grade level within the study, as the results may or may not be generalized among other grade levels. The results from the study may be limited to rural Virginia, as all three schools were located in rural areas of Virginia. Additionally, the nature of Virginia’s Standard of Learning Reading Assessment changed during the spring 2013 administration of the test. This was the first year that the new, more rigorous standards were tested. Therefore, it is possible that the results of this study were affected.
CHAPTER 2: LITERATURE REVIEW

Introduction

In the world of secondary schools, an ethical dilemma exists amongst teachers. This ethical dilemma involves the responsibility of the teaching of literacy skills, with many content-area high school teachers blaming elementary teachers for their students’ poor reading skills. An overwhelming majority of high school students are not able to read at a proficient level, as evidenced by the NAEP results in 2011, which indicates that 66% of our nation’s eighth grade students are not reading at a proficient level. Even more alarming than these staggering numbers are the attitudes of many middle and high school educators, who believe that they hold no responsibility for these students (Alger, 2007; Adolescent Literacy, 2008; Ryan, 2008).

Although the strict specialization of middle and high school teachers ensures that students are receiving instruction from educators who have been highly trained within the subject matter, the departmentalization inside middle and secondary schools often negatively impacts students, particularly those who enter high school with reading deficits (Alger, 2007; Beaufort, 2009; Witte, Beemer & Arjona, 2010). Such departmentalization has resulted in content area teachers believing that their jobs do not involve teaching reading. Even more troublesome is the fact that, even though research reveals the benefits that accompany the incorporation of reading comprehension strategies at the middle and high school level (Biancaros & Snow, 2004; Nichols, Young & Richelman, 2007) the vast majority of middle and secondary teachers do not devote adequate amounts of instructional time to mastering these strategies (Ness, 2007). Thus, literacy support within the content area classroom is rarely available (Alger, 2007; Adolescent Literacy, 2008; Ryan, 2008; Witt et al., 2010). The primary purpose of this literature review is to review the basic tenets of literacy, to examine the issues surrounding adolescent literacy, to investigate
possible methods to assist struggling readers, and finally, to review the empirical evidence surrounding the Accelerated Reader program.

**Theoretical Framework**

**Vygotsky.** Russian psychologist Lev Vygotsky (1896-1934) became a central figure within the world of child psychology early in the 20th century. Vygotsky viewed child development as a process rather than a product and claimed that one’s development begins at birth and continues until one’s death. His primary works, written between 1925 and 1934, serve as the basis for his educational theories (Hofstetter & Schnewly, 2009). A contemporary to Jean Piaget (1896-1980), Vygotsky spent much of his career disputing the developmental theories proposed by Piaget, such as the assertion that children progress through developmental stages. Contradicting Piaget’s regimented stages of development, Vygotsky claimed that human beings are always engaged in the processes associated with development, and such processes are far too complex to be categorized, as they are in Piaget’s theories (Fox & Riconscente, 2008; van Kuyk, 2011).

**Social Development Theory.** This study is grounded in the Lev Vygotsky’s Social Development Theory (1978), which stresses the importance that social interaction bears upon the development of cognition (Vygotsky, 1978). Vygotsky realized the importance that society bears upon child development and even purported that, since human beings take part in social interaction on a daily basis, learning thereby begins at birth and continues until death. Thus, social learning and social interaction result in cognitive development (Fox & Riconscente, 2008; van Kuyk, 2011; Vygotsky, 1978). Vygotsky’s theory rests upon three primary principles, which include the zone of proximal development (ZPD), scaffolding, and metacognition. (Fox & Riconscente, 2008; Hofstetter & Schnewly, 2009; Levykh, 2008).
**Zone of proximal development.** This zone of proximal development is essential to many independent reading programs and is used to determine the reading level range in which students should be reading in order to experience the most growth (Knapp, 2008; Kravstova, 2009; Niewolny & Wilson, 2009). Vygotsky defines the ZPD as the “distance between the actual developmental level as determined by independent problem solving under the guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 86).

**Scaffolding.** The concept of pre-reading strategies is rooted deeply in the cognitive learning theory, which proposes that learning occurs most efficiently when new knowledge is related to prior knowledge (Alexander & Jetton, 2000; Brozo, 2010; Dean & Dagostino, 2007; Dzaldov & Peterson, 2005; Lei, Rhinehart, Howard & Cho, 2010; Taraban et al., 2004). Good readers realize that, in order to successfully construct meaning of a text, they must begin by activating prior knowledge. Thus, pre-reading strategies are vital, as they help readers activate prior knowledge (Armstrong & Newman, 2011; Lei et al., 2010; Voge, 2011). However, many students graduate from high school inexperienced in utilizing schema and drawing upon prior knowledge in order to construct new knowledge. Such students would benefit from think aloud activities in which an instructor models the concept, which in turn would provide the scaffolding necessary to construct and maintain new knowledge (Armstrong & Newman, 2011; Lapp, Fisher & Grant, 2008, Vygotsky, 1978).

**Metacognition.** Vygotsky maintained that the act of reading is an active process rather than a passive one (Fox & Riconscente, 2008; Mills, 2010). After activating prior knowledge, successful readers also realize the importance of employing fix-up strategies when reading a text. Because one’s engagement with a text does not necessarily guarantee comprehension, readers must be able to monitor their understanding throughout the reading process. Proficient readers
automatically recognize when they do not comprehend the material and are able to initiate strategies to correct the problem (Hock & Mellard, 2005; Lei et al., 2010; Vogue, 2011). Thus, students who lack such skills often find it difficult to make judgments regarding their learning while they are in the process of reading (Silvers-Gier, Kreiner & Natz-Gonzolaz, 2009). In recent years, much attention has been given to the reader’s own awareness of his/her own metacognitive processes that are employed during the reading process. Metacognition includes the learner’s ability to manipulate and control his/her cognitive processes in order to construct meaning from a text, thereby maximizing learning (Flavell, 2004; Fox & Riconscente, 2008).

**Bandura.** Building upon the work first begun by Vygotsky, Canadian psychologist Albert Bandura (born 1925) continued to explore the impact that one’s social environment has upon cognitive development. In direct response to behaviorist theories, Bandura argued that not all learning is derived from direct reinforcement, but instead, occurs from direct observation. In his famous bobo doll experiment (1961), Bandura illustrates the manner in which a child’s behavior can be directly influenced by the observations they make from the world around them. Thus, children develop behaviors through observation and imitation (Bandura, 1977).

**Social Learning Theory.** This study is grounded both in the works of Vygotsky’s Social Development Theory (1978) and Bandura’s Social Learning Theory (1977). Bandura (1977) defined self-efficacy as “a person’s judgments of her or his ability to perform an activity, and the effect this perception has on the on-going and future conduct of the activity” (p. 586). Thus, the basis of this study is grounded within the concept of self-efficacy and motivation, as adolescents who perceive themselves as competent readers will most likely be more willing to engage in literacy activities, whereas adolescents who do not possess a positive sense of self-efficacy will most likely avoid literacy activities. Since time spent engaged in literacy activities has been
proven to have a strong correlation with reading achievement (Connor, Jakobsons, Crowe & Meadows, 2009; Donne, 2011; Guthrie, Hoa, Wigfield, Tonks & Perencevich, 2006; Quirk et al., 2010; Unrau & Schlackman, 2006; Wang & Guthrie, 2004), self-efficacy and motivation are very important to the reading achievement of adolescents.

**Basic Tenets of Literacy**

In her widely renowned book *Stages of Reading Development*, Jean Chall (1983) outlines the stages that children proceed through to become proficient readers. It is important to recognize these stages in order to determine at which point on the spectrum struggling readers may be lingering. The pre-reading stage begins at birth and continues until children begin their education. In this pre-reading stage, children begin to understand that words are comprised of letters, and they may even begin to recognize popular logos, such as the signs of Wal-Mart and McDonald’s. During this stage, children may engage in pretend reading, as their interested with the printed word begins to develop (Chall, 1983). Stage 1 begins when children start receiving formal training in literacy (usually kindergarten – 1st grade). A child’s ability to associate letters with particular sounds marks the emergence of this stage. In this stage, much of the child’s attention is directed to the decoding of words, rather than the understanding of them (Chall, 1983). A child enters stage 2 when he/she begins to use whole word patterns rather than singular sound patterns (usually 2nd-3rd grade). Although children in this stage are routinely combining sounds to form whole words, their focus remains at the word level; thus, they still are not reading for meaning (Chall, 1983).

Beginning with stage 3, a major shift develops, and the primary purpose of reading involves gaining new knowledge. This stage, which lasts longer than the previous ones, often comprises the reader’s intermediate school years (usually 4th-8th grade). The focus is no longer
the word itself, but instead the meaning of the word. Stage 3 readers remain somewhat limited in knowledge and experiences, so the simplicity and direct-nature of texts are important during this period (Chall, 1983). When students enter stage 4 (usually high school), they are ready to engage with texts while considering multiple points of view. By relying on their own knowledge base and past experiences, stage 4 readers begin making inferences when engaged in a text. Thus, hidden meanings that aren’t always directly stated by the author are often explored (Chall, 1983). Stage 5 readers have reached the pinnacle of reading development, as they bring the higher-level skills of analysis, inference, and synthesis to their reading. This stage usually develops after high school (Chall, 1983).

As children embark on the journey of learning to read, they begin by recognizing that words are comprised of different sounds that are blended together to create words (Tompkins, 2009). The first component of literacy involves phonemic awareness, or the ability to hear and distinguish between the different phonemes, or the individual sounds, within a word. Long before children ever begin learning to read, they can engage in phonemic awareness activities that will support the transition to the alphabetic principal and phonics instruction (Rasinski, Samuels, Hiebert, Petscher & Feller, 2011; Roehrig, Guildry & Bodur, 2008; Vacca & Vacca, 2005). Phonemic awareness differs from phonics in that it lays the foundation for later phonics instruction. For example, when children develop phonemic awareness skills, they are then able to identify the sound-symbol relationships that exist in language (Tompkins, 2009). Phonemic awareness activities may include isolating a particular sound within a word, matching words with sounds, blending individual sounds to create words, breaking words up into syllables, and substituting sounds with other sounds within words.
Following activities focused upon phonemic awareness, phonics instruction will be introduced to students learning to read. During this stage of literacy instruction, children learn the relationship between letters and combinations of letters (also known as graphemes) and the individual sounds in speech (also known as phonemes) (Tompkins, 2009). Although there has been much debate over the importance of phonics in the teaching of reading (Thompson et al., 2008; Venable, 2006), the bulk of the research reveals that systematic phonics instruction plays a significant role in literacy instruction (Camilli, Kim & Vargas, 2008; Cowden, 2010; Gates & Yale, 2011; Rasinski, Rupley & Nichols, 2008; Swanson & Vaughn, 2010). Instruction in phonics should not, however, make up the entirety of a reading program. Instead, it should be a component of a balanced approach to literacy instruction, one that includes instruction in all four cueing systems. Thus, a combination of the phonological, semantic, syntactic, and pragmatic cueing systems is the most effective method of literacy instruction (Bomer, 2006; Gentry, 2006; Tompkins, 2009). Activities involving phonics instruction may include word sorts, identifying sound patterns, creating alphabet books, and arranging letter blocks to form words.

Fluency refers to the ability to read smoothly at an adequate pace with sufficient expression. It develops over time and will improve as the reader’s word identification skills improve. The process of reading involves two cognitive tasks that occur simultaneously; thus, when an individual is engaged in the act of reading, the two processes are happening at the same time within the reader’s brain. The first is decoding (recognizing the printed words) and the second is comprehension (deriving meaning from the words that are recognized) (Raskinski, Blachowicz & Lems, 2006; Tompkins, 2009). Because these two acts are occurring simultaneously within the brain, a disparity in comprehension may occur when too much attention is given to the process of decoding. When a reader lacks fluency in decoding the words
in a timely manner, he/she has little cognitive room for the task of interpreting the words; thus, he/she is unable to comprehend (Rasinski, 2003; Rasinski et al., 2006). As children progress throughout school, the rate at which they read should also increase. By third grade, most children are able to read 100 words per minute; by adulthood, most will be able to read 250-300 words per minute (Tompkins, 2009). Fluent readers also acquire the attribute of prosody, which occurs when their oral reading is similar to talking (Rasinski et al., 2006). When students fail to recognize words easily and quickly, they fail to become fluent readers. Much time and energy is spent on word identification, and they often appear hesitant when reading, sounding out individual words. Thus, they often develop problems with comprehension simply because they cannot maintain the cognitive energy required for both word identification and comprehension (Tompkins, 2009). Fluency activities may include choral reading, high-frequency word drills, creating word walls, and viewing closed caption television programs.

Vocabulary acquisition begins at birth and continues throughout one’s life (Richardson, Thomas, Filippi, Harth & Price, 2010). As students enter middle and high school, the vocabulary they encounter on a daily basis becomes more and more complex. Students begin juggling terms from a wide range of subject matter, as their content-area teachers expect them to understand their content-area vocabulary within their courses. Students who do not possess strong reading skills do not employ the strategies necessary to strengthen their own vocabularies (Korat & Shamir, 2012). If these skills are not acquired during middle and high school, they will become even more detrimental to the success of the college student, whom is often left to his own devices when figuring out unfamiliar words. Many college freshmen show difficulties in reading comprehension due to inadequate vocabularies (Willingham & Price, 2009). Literacy experts agree that in order to improve comprehension, students must build strong vocabularies.
However, the most effective way to teach vocabulary has been a subject debated for quite a while. Despite the fact that research reveals that teaching vocabulary words in isolation is ineffective, the practice is still widely used today (Beers, 2003; Blachowiez, Fisher, Ogle & Watts-Taffe, 2006; Robinson, 2005; Vacca & Vacca, 2005). Ineffective practices that teach vocabulary in isolation should be replaced with researched-based vocabulary practices that focus upon authentic engagement with new words. Various methods in which to build such vocabulary include developing schema, scaffolding, and using context clues to determine word meaning.

Comprehension, or constructing meaning from the text, is the primary goal in the act of reading and is also the area with which most adolescents struggle (Beers, 2003; Graves & Liang, 2008; Radcliff, Caverly, Hand & Franke, 2008). The majority of experts agree that comprehension does not just passively occur once the words are read. Instead, the reader must be an active participant in the process, hereby engaging in a distinct interaction with the text. In describing the process of reading and thus her own Transactional Theory, literary critic and reading theorist Louise Rosenblatt (1988) states, “Every reading act is an event, a transaction involving a particular reader and a particular configuration of marks on a page, and occurring at a particular time in a particular context” (p. 4). The reader begins the cognitive process of comprehension first by drawing upon prior experiences that will assist him in constructing meaning from the text (Graves & Liang, 2008; Tompkins, 2009). Instructional activities that will build comprehension skills include the use of graphic organizers, summarizing, building background knowledge, and guided practice tasks.
**Metacognition and the Act of Reading**

Another important factor in reading achievement involves metacognition (the ability for one to think about one’s own thinking) and the reader’s use of metacognitive strategies during reading. Good readers are aware of their understanding of a text and are able to employ various metacognitive strategies in order to comprehend a text. The less an individual engages in the reading process, the less likely he will utilize metacognitive strategies (Chen et al., 2009; Fox & Rioconscente, 2008; Lei et al., 2010; Nash-Dietzel, 2010; Pang, 2009; Simsek & Balaban, 2010). Metacognition, or the act of thinking about one’s own thought processes, has emerged as an important part of the reading process. In specific regard to reading, Cantrell and Carter (2009) define metacognition as “the extent to which a reader is aware and in control of his or her mental processes when interacting with text” (p. 197-8). Cornerstone studies regarding adolescent literacy suggested that: 1) when compared to the research that exists on children, little empirical research exists on adolescent comprehension, 2) the use of metacognitive strategies is extremely important in understanding texts, 3) adolescents can benefit from the direct instruction of metacognitive reading strategies, 4) traditionally, high school teachers have been ill-prepared to teach their students metacognitive strategies, and 5) some strategies prove to be more valuable than others (Alvermann & Moore, 2011; Anderson & Roit, 1993; Baker & Brown, 1984; Flavell, 1979; Garner, 1987; Paris & Winograd, 1990; Pressley & Afflerback, 1995; Pressley, Goodchild, Fleet, Zajchowski & Evans, 1989; Pressley, Johnson, Symons, McGoldrick & Kurita, 1989). These early studies on adolescent literacy provide valuable insight for future researchers. Ultimately, we know that expert readers utilize a wide array of metacognitive strategies during the reading process.
Alexander and Riconscente (2005) classified metacognitive strategies as surface level strategies or deep processing strategies. Surface level strategies are those strategies that students employ to gain a very shallow understanding of a text. Readers who exhibit only surface level strategy use may: omit words, adjust rate of speed, and re-read. Conversely, deep processing strategies are those that result in a personal interaction between the reader and the text. Readers who exhibit the use of deep processing strategies may: visualize what a text is saying, compare the current text that they are reading to other texts they have read in the past, and question the source of the information (Alexander & Riconscente, 2005; Alexander & Fox, 2011; Cantrell & Carter, 2009).

According to Fogarty (1994), metacognition is a three-part process that requires the learner to actively think about his/her thinking throughout the reading process (prior to reading, during reading, and after reading). Efficient readers employ appropriate strategies during all three phases of reading in order to successfully extract meaning and engage in learning. In order to successfully construct the meaning of a text, readers must be aware of which metacognitive strategies to employ (Cantrell & Carter, 2009; Lei et al., 2010; Voge, 2011). The fact that successful students utilize a wide variety of metacognitive strategies is well-grounded in the literature (Lei et al., 2010; Linderholm & Wilde, 2010; Nash-Ditzel, 2010; Simsek & Balaban, 2010; Voge, 2011). We know that struggling readers do not utilize as many strategies when compared to strong readers. For example, students who lack proficient reading skills are often unaware of which strategies to use at any given time; therefore, they must be guided through metacognitive processes. Through such training, students will recognize when they do not comprehend the material and will automatically begin to self-assess their comprehension of a text and will consciously and automatically employ metacognitive strategies to correct the
problem. Unfortunately, few secondary schools provide struggling students with the means needed to become proficient in using these tools (Armstrong & Newman, 2011; Nash-Ditzel, 2010).

Because metacognitive strategies force students to think about their own learning and thinking, they can be valuable tools in making students aware of what they have learned and what they have failed to learn. Furthermore, successful readers who have been equipped with metacognitive strategies know when they have lost connection with a text and which strategies are appropriate for different situations. Such strategies can be divided into three categories: planning (pre-reading), monitoring (during reading), and evaluating (after reading) (Pressley & Afflerbach, 1995). Since many students enter higher grades with little experience with such strategies, direct instruction that develop students’ self-monitoring skills may be helpful. Recognizing the importance of self-awareness and monitoring, Chen, Gualberto, and Tameta (2009) developed and validated metacognitive reading awareness inventory specifically for college students in an effort to assist students invoke these metacognitive strategies while engaged with a text. Furthermore, studies reveal that a majority of both secondary and college students are unable to select the appropriate key information from a text and therefore exhibit poor highlighting and note-taking skills. Good readers realize that the meaning of a text does not magically appear; rather, such meaning must be constructed through direct interaction between the reader and the text (Lei et al., 2010; Pressley & Afflerbach, 1995; Voge, 2011).

Areas of Reading Difficulties

Within the realm of reading instruction, several categories of reading problems exist. While it is important to recognize the different types of reading problems, it should be noted that the vast majority of adolescents who struggle with reading experience problems with
comprehension and need instruction on the application of reading strategies (Alvermann, 2005; Biancarosa & Snow, 2006; Pitcher, Martinez, Dicembre, Fewster & McCormick, 2010).

**Decoding.** The first category of reading difficulties involves decoding problems, in which the reader is often unable to sound out the word as it is written. Issues with decoding may be attributed to phonemic awareness and phonics problems (Christo & Davis, 2008; Fletcher, Stuebing & Barth, 2011; Savage & Frederickson, 2006; Speece, Ritchey & Silverman, 2010; Woore, 2010). Because the most significant problems with comprehension stem from the inability to recognize words quickly in order to construct meaning, issues with decoding cannot be overlooked. During the act of reading, it is impossible to devote the same amount of energy to decoding and to comprehension (Gentry, 2006; Raskinski, 2003; Tompkins, 2009). Therefore, skilled reading requires automatic word recognition. One way to effectively combat difficulties with decoding involves chunking, or dividing longer words up into smaller chunks (Beers, 2003; Gentry, 2006; Gray, 2004).

**Comprehension.** The second category involves comprehension problems, wherein the reader can phonetically decode the words presented, but is unable to construct them into meaning (Bomer, 2006; Fagella-Luby & Deshler, 2008; Graves & Liang, 2008; McNamara, O’Reilly, Best & Oruzu, 2006). Students who have difficulty with comprehension are often dependent readers, and they rely upon others’ interpretation in order to gain their own understanding of a text. Struggling adolescent readers must be afforded the opportunity to become independent readers. When teachers equip these readers with the strategies necessary to derive their own meanings from texts, then they will move on to independence.

**Fluency.** Although once considered a task to be mastered within the primary grades, reading fluency has become a concern for older students. Recent students reveal the importance
that fluency has upon the comprehension and overall reading achievement of adolescents (Cooper & Kiger, 2006; Rasinski et al., 2011; Roehrig et al., 2008; Vacca & Vacca, 2005; Wexler, Vaughn, Edmonds & Reutebuch, 2008). Fluency is an important aspect of all phases of literacy, from childhood to adulthood, because of its influence upon comprehension. When readers can recognize words automatically and with ease, they have a much easier time comprehending what they read. For example, efficient readers are able to read orally at a rate of 120-170 words per minute, a range which is dependent upon text difficulty. Because good readers are able to automatically identify the majority of words within a text, they are able to focus on comprehension (Roberts, Torgesen, Boardman & Scammons, 2008; Tindal, Hasbrouk & Jones, 2005).

**Adolescent Literacy**

Adolescent literacy must first be considered in relation to the physiological, psychosocial, and cognitive development of adolescents (Alexander & Fox, 2011). Each of these domains contributes to the literacy needs of adolescents. Adolescence has been defined as a “tumultuous time in which the changes in their physiological, psychosocial, and cognitive development is a fast and furious transition in searching for identity becomes more pronounced” (Letcher, 2011; p. 90). As children transition into adolescence, they experience neurological changes that affect their reading comprehension as well as their identities as readers. Some researchers believe that the changes that take place during adolescence cause conflicts within the individual, thus leaving him/her in a state of confusion (Alexander & Fox, 2011; Appleman, 2010).

**Adolescent.** The first issue to consider when studying adolescent literacy involves the concept of adolescence and the parameters associated with it. Some educational researchers incorporate a broad span of ages and grades into their definition of adolescent literacy, as they
begin their concept at grade 4, when students traditionally stop “learning to read” and instead “read to learn.” However, as Moje, Overby, Tysvaer, and Morris (2008) point out, such a broad expanse of age and grade range may cause one to overlook important educational and biological factors that may not be observed in grades four and five:

. . . allowing for such an age and grade span in the definition of adolescence overlooks at least two important factors that should be considered when thinking about adolescent literacy, particularly when much of the research conducted is cross-sectional in design (i.e., focuses on one age cohort at a time). One factor is the role of physical and cognitive development on youth literacy practices. The other is the role of secondary school contexts, with their changing classes and teachers, disciplinary divisions, and increasing controls. (p. 3)

Thus, most researchers consider adolescence as the period beginning in middle school.

**Content Area Literacy.** Historically, secondary teachers do not perceive themselves as being responsible for the literacy needs of their students (Cantrell, Burns & Callaway, 2009; Ehren, 2009; Heller & Greenleaf, 2007; Moje, et al., 2004). Deeply embedded within their subject areas, the vast majority of secondary teachers fail to recognize the teaching of comprehension skills as a component of their academic instructional duties. Educators often assume that students entering high school possess the necessary literacy skills to comprehend content-area material (Hilden & Pressley, 2007; Wolfson, 2008). Unfortunately, this is not always true. By the time children reach early adolescence, many students are falling behind in reading; they can read words accurately, but they cannot comprehend what they read. This problem could lead to serious results, such as dropping out of school (Benner, Nelson, Ralston & Mooney, 2010; Denton & Al Otaiba, 2011).
Motivation. Motivation continues to play important roles in adolescent literacy. The motivation to read is at the heart of adolescent literacy; not surprisingly, motivation is a powerful component of human behavior. Despite the activity in question, whether it be reading, exercising, pursuing career opportunities, cleaning, or eating healthy, humans must possess motivation to pursue their goals. When anyone, regardless of age, experiences repeated failures, his/her motivation toward that activity decreases. Such is the case with striving adolescent readers (Donalson & Halsey, 2007; Ecklund & Lamon, 2008; Klauda, 2009; Melekoglu, 2011; Pitcher et al., 2007). Students who show intrinsic motivation to read ultimately read for the sheer enjoyment of reading. Such students are more likely to see themselves as competent readers and are more likely to spend a greater amount of time engaged in literacy activities (Ivey & Fisher, 2005; Lenters, 2006; Park, 2011; Wilson & Kelley, 2010). Students who feel they have no voice or control are often unmotivated and disinterested (Alexander & Fox, 2011; Beaufort, 2009; Intrator & Kunzman, 2009).

It is of little surprise that many adolescents harbor negative feelings toward school. Intrator & Kunzman (2009) studied student participation in school activities and found that, out of 300,000 participants, only 9% of them spent at least five hours reading in school (Intrator & Kunzman, 2009). These dismal results have forced educators to fact the realities of student engagement. Today’s adolescents surpass every other generation in digital literacy (Lei, 2009; Miller, 2010). Sadly, however, research reveals that the vast majority of students remain disengaged from their academic curriculum, primarily because they are uninterested in what they are being taught (Christenbury, Bomer & Smagorinsky, 2009). Adolescents’ attitudes toward reading and their use of metacognitive strategies are both directly related to student achievement in reading (Cantrell & Carter, 2009; Fogarty, 1994; Linderholm & Wilde, 2010; Voge, 2011). If
adolescents hold negative perceptions toward the act of reading, they will spend little free time voluntarily engaged in reading. Thus, their literacy skills wane as they put forth decreasing amounts of time and effort into literacy activities.

**Self-efficacy.** Self-efficacy is a person’s belief that he/she possesses the ability to successfully complete a task. Students who possess a strong sense of self-efficacy have a strong believe in their abilities to succeed. As one’s self-efficacy grows, his/her motivation to learn also grows, as demonstrated by Guthrie, Coddington, and Wigfield (2009), “Efficacious students participate more readily, work harder, persevere longer in the face of difficulties, and achieve at higher levels” (p. 322). The greatest opponent of self-efficacy is the text that is too difficult for the student reading it.

The majority of students who struggle with reading have experienced numerous failures by the time they enter high school. Patterson & Elliot (2006) describe the destructive cycle that such students often find themselves in:

Many high school readers who have struggled with reading along the way carry deeply entrenched negative beliefs about the reading process and, consequently, construct barriers to protect themselves against feelings of failure. These attitudes push reading achievement into a downward spiral. Such readers have been labeled reluctant, resistant, aliterate, or remedial, and effective ways to improve their reading are continual sources of debate. Because of the integral relationship between reading ability and affect, teachers face the double duty of delivering reading instruction while simultaneously mending negative attitudes. (p. 378)

The more unsuccessful a student has been throughout his/her academic career, the more failures he/she has experienced, thus the more negative becomes his/her perception of reading. Such
students fall into a negative cycle, identified as the Matthew Effect (Stanovich, 1986), whereby they read less and less, thus falling further and further behind their peers. These negative outcomes juxtapose the positive social and emotional influences that successful readers experience. Studies show that adolescent willingness to engage in difficult tasks increases when they believe that they have the ability to accomplish such difficult tasks (Eccles & Wigfield, 2002; Jacobs, Lanza, Osgood, Eccles & Wigfield, 2002).

**Engagement.** Engagement in literacy plays a key role in language acquisition. Do adolescents read for pleasure? If they do, how much time do they spend engaged in such reading? According to Topping (1996), “Reading is a skill. The more you do it, the better you become. The better you become, the less effort it takes. The less effort it takes, the more you can do – and the more you want to do” (Topping, 1996, p.3). Conversely, the weak reader often views the reading process as a vicious cycle and often avoids reading all together. Paul (1996) compared the acquisition of literacy skills to the process of learning to swim. The water should not be too deep or too shallow, and floatation devices should only be used if and when necessary. Paul concluded, “You learn to swim by swimming, and to read by reading. Read it as if it makes sense and perhaps it will” (p. 3). The majority of educators are well aware of the outside forces that compete for the attentions of today’s adolescents. In order to combat the significant rise of reading deficiencies amongst adolescents, one must first identify what activities teenagers consider important. As children become adolescents, they become more keenly aware of social situations. Interactions with peers become more and more important, thus affecting every facet of their lives, including their own literacy practices (Appleman, 2010; Alexander & Fox, 2011; Intrator & Kunzman, 2009).
One study (Hopper, 2005) focusing on student engagement reported that today’s adolescents are just as engaged in literacy practices as previous generations; however, the types of reading practices are now very different from past ones. For example, Hopper (2005) found that today’s adolescents were very engaged in multi-literacies, but very few of them were reading actual books. In 2005, such a study was conducted, and the subjects were 100 sixth graders and 100 ninth graders randomly selected from public schools in western Oregon (Nippold, Duthie & Larsen, 2005). Both groups contained an equal number of boys and girls, and all of the subjects were considered to be average learners. The students completed a survey, the “Student Questionnaire,” which consisted of questions related to the students’ use of free-time. Question 1 included a list of activities, and the subjects were asked to select those activities in which they participated. Question 2 required the students to estimate how much time they spent outside of the school day engaged in pleasure reading. Question three included a list of various reading materials, and students were asked to select which materials they enjoyed reading for pleasure (Nippold et al., 2005). Thus, engagement in literacy plays a key role in language acquisition. Do adolescents read for pleasure? If they do, how much time do they spend engaged in such reading? The majority of educators are well aware of the outside forces that compete for the attentions of today’s adolescents. In order to combat the significant rise of reading deficiencies amongst adolescents, one must first identify what activities teenagers consider important.

**Parent’s Role.** The role of the parent is also significant in regards to the literacy development of their children. Biological factors, such as the dominance of reading difficulties due to genetic factors, have been validated through research designs involving twin and adoptive studies (Nation, 2006; Petrill, Hart & Harlaar, 2010). In a study focusing upon the effects that
parents’ past reading experiences may have upon their children, Conlon, Zimmer-Gembeck, Creed & Tucker (2006) concluded that a strong correlation exists between the literacy history of the parents and the literacy of their children. Just as family history plays an important role in a child’s health, it also plays an important role in literacy development (Conlon et al., 2006). Not only do biological factors come into play when determining the role of the parents in relation to reading achievement, but parental involvement in the child’s education also becomes a factor. Specifically, researchers suggest that family involvement plays the greatest role for those children who are most at risk. In a study examining the effects of high parental involvement within families, Dearing, Kreider, Simpkins, and Weiss (2006) concluded that the more involved parents are in their children’s education, the higher the literacy levels of the children. In response to other studies that suggest the negative impact that a mother’s low education level has upon her children, Dearing et al. (2006) also assert that the mother’s low level of education is not as important if the family’s involvement with the child’s education remains high.

**Home Environment.** In addition to biological factors, the role of family also contributes to environmental factors, such as the availability of reading materials, and the importance placed upon literacy (Bates, Castles & Luciano, 2007). It is well-documented that there is a strong correlation between a child’s home environment and his/her achievement in reading (Bhattacharya, 2010; Rashid, Morris & Sevcik, 2005; Zadeh, Farnia & Ungerleider, 2010). Studies reveal that parents play a pivotal role in the development of their children’s reading skills. Parents who create stimulating home environments and take part in their children’s education help their children become stronger readers (Bhattacharya, 2010; Eamon, 2005; Zadeah, Farnia & Ungerleider, 2010). Researchers have suggested that parents with higher education levels subsequently created home environments that are richer in literacy. Milne and
Plourde (2006) asserted that parent education level, rather than socio-economic status, has more influence over the type of literacy environment established within the home.

**Struggling Adolescent Readers.** Students who struggle with academics often indicate that they are uninterested in reading. Such students, who may be able to read but choose not to read, are often referred to as *alliterate, reluctant, or resistant* (Lenters, 2006; Warrican, 2006). Research on adolescent literacy cites several reasons that middle and high school students claim as reasons for their refusal to read: they have decreased interest in the reading materials that are available to them (Ladbrook, 2009; Lenters, 2006; Warrican, 2006); they have poor perceptions of themselves as readers (Warrican, 2006); they feel as if they have lost their voice, choice, and control where literacy is involved (Fisher & Ivy, 2006; Lenters, 2006); and finally, they feel as if they are losing in a competition with other peers (Fisher, 2008; Lenters, 2006). As children become adolescents, they become more keenly aware of social situations. Interactions with peers become more and more important (Appleman, 2010; Alexander & Fox, 2011; Intrator & Kunzman, 2009). Struggling readers often compare their own reading abilities to the reading abilities of others, in particular their peers. When struggling readers realize that their own ability is significantly lower than that of their peers, they often lose motivation to engage in activities involving reading, and thus fall farther and farther behind (Fisher, 2008; Lenters, 2006).

Recognizing the need for reading intervention programs at the secondary level, many secondary educators may not know how to choose students for their intervention program. Jenkins, Hudson, and Johnson (2007) analyzed the data from numerous studies in order to identify effective screening measures for students at risk for reading difficulties. The research team utilized the “Response to Intervention” (RTI) framework as a basis for their study. Since the RTI approach stresses early identification and early intervention, the research team
considered it important to recommend effective screening measures that would identify children. This proved to be a very detailed and complex study, and the results are beneficial to the educational community. However, the most valuable information comes at the end of the study, where the research team offers suggestions as to which screening tool is most appropriate for various grade levels.

Warrican (2006), sought to identify key elements of a successful reading intervention program. The subjects were 17 Caribbean high school students who were in a reluctant readers’ class. Thirteen of the subjects were boys, and all were between the ages of 15-20 years. It is a small study, but likely will have interesting results. Reading records filled out by students, classroom observations, interviews with the students and teacher, Qualitative Reading Inventory – II (QRI-II) were used. The researcher gave the students an interest inventory and then placed informational materials (magazines, books, graphic novels) within the classroom. The program ran once 45-minute period each week, for 16 weeks. During this 45 minute period, students engaged in literacy activities, such as silent reading, read-alouds, and small-group discussions. Warrican concluded that schools were partly to blame for the students’ academic failures. Consistently placed in the lowest-leveled classes, these students came to see themselves as failures and not at all as competent readers. The school’s library, shelving exclusively classics and novels, did not provide appropriate materials for reluctant readers. (The students did not have access to magazines nor young adult literature while in school.) When given the opportunity to read materials relating to subjects that were of interest to them, these students made very few gains, partly due to the limited amount of time devoted to the program. The researcher administered the QRI-II to five randomly-chosen students, and concluded that no measurable gains were made during the 16-week period. This study emphasizes several
strategies school divisions can incorporate in order to reach reluctant readers. Since many students lose interest in reading by the time they reach high school, it is very important for school libraries to provide interesting materials written on a variety of reading levels. Reluctant readers must be given daily opportunities to improve their literacy skills by reading books, magazines, etc. on subjects that interest them and that are written at their independent reading level.

*From “Learning to Read” to “Reading to Learn”.* As students progress throughout school, a shift occurs within the realm of reading. Beginning around grade 4, literacy instruction often ceases, and students stop learning to read and instead begin reading to learn. This shift that occurs within the context of reading often proves difficult for students, as they are not only expected to grasp meaning from more complex texts but to do so while employing higher-level thinking skills such as analysis, evaluation, and synthesis (Eckert, 2008; Fashola & Shkolnik, 2006; Willingham & Price, 2009). Such expectations, coupled by more complex reading materials, often presents a difficulty for most students as they transition from learning to read to reading to learn. Given the right amount of time and guidance, most adolescents successfully navigate the challenges of this transition; however, some struggling students, most of whom view the act of reading as merely an act of decoding words, do not complete the transition from learning to read to reading to learn (Alvermann, 2005; Alvermann & Moore, 2011; Beers, 2003; Harlaar, Dale & Plomin, 2007; Moje et al., 2008).

*Self-perception.* Adolescents who struggle with basic comprehension skills often need elementary skills instruction yet find themselves in the middle of difficult high school curriculums with demanding literacy requirements; thus, such students are often unable to keep pace academically (Appleman, 2010; Archer, 2010; Enriguez, 2011). Sadly, the labels placed
upon struggling adolescent readers while in high school are often based on other factors, such as behavior and teacher perceptions (Enriquez, 2011; Fairbanks & Ariail, 2006; Triplett, 2007). Research suggests the importance of adolescent self-perception within the context of literacy. Adolescents who view themselves as readers often spend a large amount of time engaged in literacy activities, whereas adolescents who do not view themselves as readers spend a significantly smaller amount of time engaged in literacy activities (Ambe, 2007; Appleman, 2010; Berkely, 2007; Boling & Evans, 2008; Brinda, 2008). Ambe (2007) describes this phenomenon, “Reading expository texts is often a slow and arduous task for them. Such students often become frustrated and develop low self-images as readers. Ultimately, they tend to avoid reading and other related literacy activities” (p. 632-3). Thus, once students enter high school and are faced with the complexities found within expository texts, they are much more likely to feel defeated, hereby avoiding the task of reading at all costs.

**Overwhelming Texts.** Once struggling adolescent readers reach high school, they are seldom (if ever) provided the opportunity to interact with texts written at their own independent reading levels (Allington, 2007; Dennis, 2009). As a result, such students spend the majority of “their day with difficult subject-area text he or she is expected to comprehend independently. At no point during the day is the student exposed to a ‘just right’ text” (Dennis, 2009, p. 284). In order to stay afloat within their content-area classes, most struggling adolescent readers gain only a shallow, surface-level knowledge of the text, as they simply search for facts, while failing to experience personal interactions with the text (Franzak, 2006; Hall, 2007). Data reveals that students who struggle with reading during their late childhood to early adolescent years “do not naturally become proficient at reading more complex material as they age” (DiGisi, 2010, p. 16).
Thus, the cessation of reading instruction at the end of the elementary years greatly contributes to the number of struggling adolescent readers at the high school level.

**Lack of Reading Strategies.** It stands to reason that the lack of proficient literacy skills negatively impacts student success rates in college. Furthermore, motivational factors surrounding the acquisition of advanced literacy skills ultimately determine one’s success in school and the workforce. If students fail to recognize their own literacy needs, their chances of successfully competing in college or in the workforce are very slim. (Dean & Dagostino, 2007; Peterson et al., 2011). In determining the importance of self-regulation upon reading practices, Nash-Ditzel (2010) questioned whether or not reading strategies that are taught in elementary schools could be beneficial to older students. These students were equipped with strategies to assist them in becoming more proficient at comprehending what they read. All five participants showed significant signs of improvement at comprehending reading material when using specific reading strategies.

**Lack of Time.** Because of the time constraints placed upon struggling adolescent readers (they simply do not have large amounts of time before they will leave school, whether it be through dropping out or graduating), educators should utilize available research to ensure the optimal gains in the shortest amount of time (Fagella-Luby & Deshler, 2008). Ultimately, to achieve the greatest gains for struggling adolescent readers, educators must realize the need for adolescent literacy instruction. Such instruction cannot mirror that of early literacy instruction, as “adolescent readers require different instructional emphases and pedagogies to improve reading comprehension” (Fagella-Luby & Deshler, 2008, p. 77).
No Child Left Behind, AYP, and Common Core

The No Child Left Behind Act (2001) has forced secondary administrators throughout the United States to take a closer look at the literacy weaknesses of their students. The primary purpose of the Act was to ensure that all students are achieving academically, regardless of race, ethnicity, and socio-economic status. An integral component of the No Child Left Behind Act (2001), adequate yearly progress, or AYP, is the method of measurement by which schools are held accountable for meeting student performance goals. AYP is used to determine if schools are effectively educating their students by demonstrating that subgroups of students are progressing toward meeting state standards. The task of meeting AYP goals is vital to schools that receive Title I funding, which “provides financial assistance to local educational agencies (LEAs) and schools with high numbers or high percentages of children from low-income families to help ensure that all children meet challenging state academic standards” (U. S. Department of Education, 2011, pg. 1).

Individual states are required to determine their own criteria for making AYP, as they address three distinct areas: 1) at least 95% of students must take part in state assessments, 2) a certain percentage of students must show proficiency in math and reading, as evidenced by state assessment results, and 3) pre-determined graduation rates must be met. Schools that do not meet the standards within all student subsets are labeled as schools needing improvement. According to the NCLB guidelines, students in such schools may apply to be transferred to other schools within the district that have made AYP. Ultimately, the federal government may take over schools that fail to meet AYP benchmarks for five consecutive years (Lemann, 2008).

The Common Core State Standards, published in 2010, are a set of national educational standards adopted by individual states in an effort to increase student preparedness for college
and career (Steward & Varner, 2012). The national program usurps local control over the math and English curricula of school systems, thereby setting a national standard of education that should prepare all students for college and/or the increasingly complex global workforce. Many critics view Common Core as a national curriculum, an assertion that the program vehemently denies, describing itself instead as “a clear set of shared goals and expectations for what knowledge and skills will help our students succeed” (Common Core, 2013, para. 2). It should be noted that 45 states and the District of Columbia have adopted Common Core standards, leaving only four states, Virginia, Nebraska, Alaska, and Texas, abstaining. (Minnesota adopted the English standards but kept their own math standards). The Common Core standards were developed by the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA) in order to ensure that all students become college and career ready by the time they graduate.

**Fundamentals of Successful Reading Programs**

Today’s generation of students will eventually leave high school and enter a work force in which they will be expected to critically evaluate large quantities of information. Despite the fact that only 38% of high school seniors tested at or above proficiency in reading (NCES, 2011), students in today’s schools are faced with more words on a daily basis than perhaps any other generation in history. Thus, the role of information literacy remains paramount in their lives, as they interact with a multitude of electronic texts (Considine, Horton & Moorman, 2009; Young, 2012).

**Self-selected Texts.** As students progress throughout their years in school, they often find fewer and fewer opportunities to read for pleasure. By the time they reach high school, they enter traditional English classes whose curricula rarely allows any room for the self-selection of
modern reading materials (Anderson, 2001; Doepker & Ortlieb, 2011; Jonsson-Smaragdi & Jonssono, 2006; Lee, 2011). Adolescents who once loved to read as children often find themselves disliking the task, simply because they no longer have the ability to choose books that interest them for classroom reading. Describing the importance of student choice of reading materials in the upper grades, Biancarosa and Snow (2006) state:

One way that motivation and engagement are instilled and maintained is to provide students with opportunities to select for themselves the materials they read and topics they research. One of the easiest ways to build some choice into the students’ school day is to incorporate independent reading time in which they can read whatever they choose.

Yet this piece of the curriculum is often dropped after the primary grades. (p. 16)

Similarly, when assessing the needs of adolescent striving readers, Pitcher et al. (2010) explain the importance of incorporating self-selected texts into adolescents’ daily literacy regime.

**Research Based Practices.** In an attempt to identify essential elements for improving adolescent literacy, Santa (2006) reviewed the Alliance for Excellent Education’s report, *Reading Next—A Vision for Action and Research in Middle and High School Literacy*. Based upon the report, she devised her own vision for a successful adolescent literacy program. After incorporating components from the *Reading Next* study and the International Reading Association’s Adolescent Literacy position statement (2006), Santa identifies four overlapping principles that she believes are essential for improving adolescent literacy: 1) classroom communities and relationships, 2) direct strategy instruction and teacher modeling, 3) internalizing principles and philosophy of learning, and 4) professional expertise. This article provided valuable insight from someone who has spent a lot of time reviewing studies on adolescent literacy. The four areas which she identifies as being critical for success should be
implemented in every classroom which contains struggling readers. For instance, the first, “classroom communities and relationships,” (Santa, 2006, p. 470) is essential for teachers to address when working with students who have faced failure after failure in the past. In order for them to take risks (i.e. reading orally), they must feel trust, both toward their teacher as well as their fellow students.

Before effective change can occur within secondary language arts programs, educators must first evaluate both successful and unsuccessful reading intervention programs. In an effort to identify key elements of successful reading programs, Reynolds, Wheldall, and Madelaine (2007) gathered data taken from three years’ worth of tutoring sessions based upon an alternative reading intervention program known as MINILIT (Meeting Initial Needs in Literacy). Students who were identified by their teachers as struggling readers attended daily, one-hour tutoring sessions, four days a week for 15 weeks. Each 60-minute tutoring session was broken up into four different activities corresponding to the following skills: 1) phonemic awareness and/or sight words, 2) word attack skills, 3) text reading and/or story time, and 4) individual reading and/or individual testing. After all students have shown their ability to read single sounds, they begin the MULTILIT Word Program, in which they are taught to recognize high frequency words. Students progress through a Word Attack Skills program, in which they learn letter-sound relationships as well as the blending processes. Students then participate in small-group reading of controlled texts, or they may listen to a story being read to them. Finally, tutors assess individual students on word attack skills and sight words while other students are engaged in silent reading. The Reading Recovery intervention program is extremely expensive for schools to incorporate, due to the one-on-one student/teacher ratio. In this study, very impressive statistics were achieved for small groups of students (between 3-6 students per group).
study also thoroughly describes what activities were focused upon during each 15 minute interval. Classroom teachers could easily adapt the information found within this article in order to meet their classroom needs. The MINILIT program also places more of an emphasis upon phonemic awareness and phonics skills than does the Reading Recovery program.

The researchers noted that, according to mandates produced by IDEA and NCLB, *all* teachers must become skilled in “delivering effective, research-based instruction to *all* students” (Simpson et al., 2004). Unfortunately, many children with disabilities do not receive such instruction within the confines of the special ed. classroom. Guided reading, a research-based instructional practice, has three main purposes: 1) to meet the diverse needs of children within a classroom, 2) to teach students to progress to more challenging texts, and 3) to use problem solving strategies in order to understand new ideas. While guided reading has been documented as an important component within the daily regimen of literacy activities for general-education students, no studies had been published on the results of guided reading when used with students ASD. This fact makes this study very important in this respect, because now special education teachers can justify using some activities that have been deemed as best practices within their own special needs classrooms.

Thompson, Cirino, and Vaughn (2007) studied successful interventions for English Language Learners. To ensure that ELL students were experiencing authentic reading difficulties as opposed to difficulties learning English, the researchers began the study by administering several tests to the pool of first graders (Thompson et al., 2007). Both tests were administered twice to each student, once in English and once in Spanish. Students selected for the study were divided into two groups, the treatment group and the comparison group. Students in the treatment group received 50-minute interventions each day. They were placed in small
groups and were led by teachers trained by the researchers. This daily intervention was in addition to their regular reading instruction that occurred within the classroom. At the end of the year, the students were once again evaluated according to pre-determined benchmarks. These benchmarks included: the Woodcock-Johnson Reading Battery, the DIBELS test, and qualitative reading inventories.

Torgesen, Houston, Rissman, Vaughn, and Wexler (2007) make the following recommendations to high schools seeking to increase reading achievement:

1) increase the amount of explicit instruction in and support for the use of effective comprehension strategies throughout the school day, 2) increase the amount and quality of open, sustained discussion of reading content, 3) set and maintain high standards for the level of text, conversation, questions, and vocabulary that are used in discussions and assignments, 4) increase the use of a variety of practices to increase motivation and engagement with reading, and 5) increase the use of specific instructional strategies that lead to greater learning of essential content knowledge by all students. (p. 16)

Langer (2001) analyzed what are the characteristics of a more effective secondary English program versus a less effective secondary English program? Her study was comprised of 25 schools in four different states. Over a two year period, a total of 88 classes were studied. Both urban and suburban schools were included, and all were similar with their economically-disadvantaged and racially-diverse populations. The researchers performed a qualitative study, which included interviews, observations, case reports, and artifacts from individual teaching experiences. The entire study took place over 5-year period, which allowed for a significant amount of data to be gathered from the various schools. Each teacher and school was studied for two years. Researchers took an in-depth look at both professional and classroom activities that
occurred during the two year period. Numerous observations and interviews were held, and the researchers maintained constant communication with the teachers through weekly emails and telephone calls. The researchers concluded that six primary characteristics were present in the more successful secondary English classrooms. Although these characteristics appeared in all the classrooms some of the time, they appeared most frequently in the most successful English classes. The six categories included: 1) approaches to skill instruction, 2) approaches to test preparation, 3) approaches to connecting learning, 4) approaches to enabling strategies, 5) conceptions of learning, and 6) classroom organization. The study was beneficial because it categorized effective classroom components within the secondary English classroom.

**Independent Reading Programs**

**Accelerated Reader Program.** The Accelerated Reader program, commonly referred to as AR, is a computer-based reading management program produced by the Wisconsin educational corporation Renaissance Learning. Through this program, students read appropriate grade-leveled books that fall within their ZPD and take brief, plot-based quizzes on them. Ideally, students would read books within their ZPD, ultimately targeting the upper end of this zone (Groce & Groce, 2005; Moyer & Williams, 2011; Newburn, 2000; Solley, 2011; Stanfield, 2006; Thompson et al., 2008). Although points can be accumulated for quizzes with scores of 70% and above, students should strive for a minimum of 85% accuracy. As students pass quizzes, points are accumulated.

The use of such a program is not without controversy, as critics are quick to question the lack of evidence-based data supporting the commercial programs (Allington, 2001; Balajthy, 2007; Goodman, 1999; Groce & Groce, 2005; Hansen, Collins & Warschauer, 2009; Krashen, 2002; Nunnery & Ross, 2007; Oppenheimer, 2007). Differing opinions exist, however,
regarding some aspects of Accelerated Reader, including the increased availability of reading materials and the increased time devoted to independent reading. While falling short of attributing the reading gains to the AR quizzes and rewards, these critics suggest that other factors that accompany the AR program, such as the increase of interesting and grade-level appropriate reading materials and the increase in time devoted to independent reading, do contribute to greater reading achievement within secondary schools (Anderson, 2001; McQuillan, 1997; Moyer & Williams, 2011; Newburn, 2000; Putnam, 2005; Solley, 2011). The studies that have been published regarding the effectiveness of the Accelerated Reader program are conflicting. While some studies reveal the positive effect of increased time engaged in independent reading (Pavonetti, Brimmer & Cipielewski, 2003; Putnam, 2005), these same studies stop short of attributing gains in reading achievement to the commercial program.

One of the major criticisms surrounding the concept of computerized reading management programs such as Accelerated Reader involves the use of questions that assess lower level thinking skills. In his book What Really Matters for Struggling Readers (2001), Richard Allington addresses the issue of question complexity found within computerized reading management systems, such as Accelerated Reader. He states:

The monitoring systems, unfortunately, seem dated and offer primarily low-level recall questions for students to answer after completing each chapter. Much of what we know about the power of high-quality comprehension strategy instruction and the potential of group discussion in fostering students’ understanding is omitted from the design of these programs. (p. 79)
This concern regarding the simplicity of Accelerated Reader’s plot-based questions are echoed throughout many of the educational studies involving AR (Carter, 1996; Groce & Groce, 2005; Thompson et al., 2008).

When studying such incentive programs, many educational researchers complain that with Accelerated Reader, the focus is on the prize, not on reading; thus, Accelerated Reader encourages children to read for the wrong reasons (Biggers, 2001; Carter, 1996; Husman, Brem & Duggan, 2005; Krashen, 2002; Melton et al., 2004; Pappas, Skinner & Skinner, 2010). Many critics share similar feelings regarding AR, as they admonish the prizes and rewards that students earn as they accumulate points through the program (Daii & Wang, 2007; Guthrie et al., 2007; Katz & Assor, 2006; Logan, Medord & Hughes, 2011). The lingering result of such rewards proves to be a controversial topic. At the secondary level, the types of rewards seem very different than many awards used at the lower grade levels. For example, many secondary schools tie the Accelerated Reader program in to students’ English grades. Although researchers may disagree with the factors that motivate students to read while in school, many teachers will more than likely agree that in today’s world of Ipods, cellphones, and video games, it has become increasingly difficult for teachers to encourage adolescents to choose a book over some of the electronic gadgets on the market today. Through the use of extrinsic rewards, including grades, teachers are more equipped to encourage students to pick up a book.

The Accelerated Reader program can be a large investment for any school district. Before putting large amounts of funding into certain programs, many school systems prefer to review data that accompanies the product. This has become another area of controversy surrounding Accelerated Reader, as many of the reports appear to conflict with one another. For example, some studies reported a positive correlation between the Accelerated Reader program
and higher standardized test scores (Brown, 2010; Lumpkin, 2011; Moyer, 2006; Scott, 1999; Rodriguez, 2007). However, other studies reported that Accelerated Reader does not improve standardized test scores (Biggers, 2001; Boucher, 2010; Focarile, 2005; Thompson et al., 2008). Because of the conflicting evidence, more research is needed on the effectiveness of the Accelerated Reader program (Biggers, 2001; Krashen, 2001; Luck, 2010).

**Key Studies Involving Accelerated Reader**

One of the first studies involving the use of the Accelerated Reader program was conducted by Topping and Paul (1999) and emphasized the strong relationship between reading practice and reading achievement. After completing the large, one-year study involving 659,000 students in grades K-12, the researchers concluded that there is a positive correlation between the amount of reading practice that students engaged in during the school day and their overall reading ability. Topping and Paul also asserted that the majority of schools fail to offer appropriate reading practice time within the school day. Moreover, such practice time diminishes significantly after grade six. Their study revealed that schools using the Accelerated Reader program reported more time for reading practice during the school day (Topping & Paul, 1999).

In a study on the formative effects on reading achievement and motivation, Vollands, Topping, and Evans (1999) attempted to create researched-based data in conjunction with the AR program. They compared reading scores between several classes of at-risk students, some of which used AR and some of which did not. After following these classes throughout the course of a year, the researchers discovered that the students using AR experienced higher reading scores than those who did not use AR at the end of study.
Another study, however, is in direct opposition to this study. Melton et al. (2004) reported that, “students who did not participate in the Accelerated Reader program showed a significant increase in reading achievement growth when compared to students who had participated in the Accelerated Reader program for a year” (p. 74). Such is the data revealed through studies involving the effects of Accelerated Reader. For every study that reports positive results, there is another one that reports negative results. There is no doubt that the use of Accelerated Reader is a controversial topic in the area of reading instruction. Many researchers criticize the fact that, despite the lack of research-based data supporting the program, many schools have put so much money into the commercially-based reading program. Students will be more likely to read independently when we equip them with books that are on their grade level and are of interest to them.

Topping, Samuels, and Paul (2007) assert that the sheer quantity of reading practice may not necessarily result in greater reading comprehension. In their 2007 study, the researchers analyzed data from 139 schools in 24 states, including 2,365 classrooms, for a total of 45,670 students ranging from grades 1-12. The researchers sought to discover a correlation between the volume of reading (quantity) and the average percent correct (quality) of student reading. They found that a positive correlation exists between student quantity (ERV – Engaged Reading Volume) and quality (ACP – Average Percent Correct). Thus, the researchers concluded that quantity (reading volume) and quality (percent correct) are both important factors contributing to reading achievement and is even more important in higher grade levels. Student achievement at the beginning of the year did not contribute significantly to the gains experienced over the course of the year. Regardless of initial reading ability, all students showed increased reading achievement through the combination of reading quantity (as measured by Accelerated Reader’s
point classification system) and reading quality (as measured by Accelerated Reader’s average percent correct). They also asserted that simply allocating time for independent reading does little to improve reading achievement (Topping, Samuels & Paul, 2007).

Topping and Fisher (2003) concluded that, in order for growth in reading skills to occur, students must “practice reading at a level which they are appropriately challenged by exposure to new vocabulary and concepts, but not confronted with failure, avoiding unproductive reading at levels too low or high for effective learning to take place” (p. 275). In their 2003 study, Topping and Fisher analyzed data from 13 schools in the United Kingdom, specifically Scotland and England. Of the 13 schools, four were located in socio-economically advantaged areas, while nine were located in socio-economically depressed areas. The study included 704 participants, ranging in age from 7-14 and grades 3-9. The researchers noted that this study faced significant limitations due to the varied implementation levels of participating schools and teachers. For example, some schools indicated scores well below 85% on the ACP (Average Percent Correct) component of the Accelerated Reader program, which should have raised warnings to the teachers, alerting them that students were reading outside of their ZPD, or zone of proximal development. Optimally, teachers would take constructive action at this point in the process, and the Average Percent Correct scores for their students would have increased. Because these scores did not rise above the 85% threshold, Topping and Fisher concluded that the program may not have been implemented correctly in those classrooms. The researchers referred to this limitation as “implementation integrity” (Topping & Fisher, 2003; p. 277) and noted the correlation between it and the outcome measures gained on the post-test of the study. Despite this limitation, the researchers concluded that the norm-referenced outcome rates on the
post-tests exceeded normal rates; thus, their findings suggest that the Accelerated Reader program “had a significant impact on reading achievement” (Topping & Fisher, 2003; p. 277).

Huang (2012) noted the disparity of research on the Accelerated Reader program, particularly at the middle school level. In his 2012 study, Huang investigated the effectiveness of the Accelerated Reader program on the reading achievement and motivation of middle school students. The study consisted of 211 students in grades 6-8 and included both quantitative data (in the form of reading scores and survey results) and qualitative data (in the form of interview responses and classroom observations). All 211 students completed the survey at the beginning of the school year. From the 211 participants, the researcher randomly selected 30 to analyze their pre-test and post-test scores. These 30 students completed interviews with the researcher, who also gathered qualitative data through classroom observations. The survey used in the study contained the following questions, and students responded to a 4-point Likert-type scale (1=Almost never, 2=Rarely, 3=Often, and 4=Almost always):

1. The Accelerated Reader (AR) program increases your reading scores.
2. The Accelerated Reader (AR) program increases your reading levels.
3. The Accelerated Reader (AR) program improves your reading comprehension skills.
4. The Accelerated Reader (AR) program increases your vocabulary size.
5. The Accelerated Reader (AR) program changes your habits and attitudes toward reading.
6. The Accelerated Reader (AR) program fosters your motivation in reading.
7. The Accelerated Reader (AR) program fosters your joy of reading.
8. The Accelerated Reader (AR) program fosters your social interaction with your friends about book talk.

(Huang, 2012; p. 234)

Huang reported that 70% of students claimed that AR almost never or rarely increased their reading levels; therefore, he concluded that the program was ineffective in raising reading achievement. Huang analyzed pre-test and post-test data from the STAR reading test for the 30 students selected to observe and interview. Although the results indicated no growth or increase in reading achievement, one must question whether the T-test used by the researcher was the most appropriate statistical measure to use, given the pre-test/post-test format of the study. Additionally, only analyzing assessment data for 30 students severely limits the validity of the study. Despite the shortcomings of the study’s design, Huang nevertheless offers valuable insight into the opinions of middle school students through the qualitative component, comprised of interviews and classroom observations. Three overarching themes were noted through the interviews:

1. The book selection hindered the joy of reading and interest in reading.

2. The amount of time required for students to spend on the AR program inhibited their intrinsic motivation and engagement to read.

3. AR decreased positive social interaction with peers and increased competition.

(Huang, 2012; pp. 238-9)

Nunnery, Ross, and McDonald (2006) studied the effects of Accelerated Reader on students in grades 3-6 who attended urban, high-poverty elementary schools. The participants in this study included 978 students, of which 89.9% were African American and 83% were eligible for free/reduced lunch. This particular study is unique in the fact that it is one of the few
involving Accelerated Reader that is of a true experimental design. The study took place at nine elementary schools within a large, urban school district. Four classes within each school became a part of the study, and the researchers randomly assigned two classes to be control groups, while the other two became the treatment groups. The following practices were followed within each treatment group: 1) 60 minutes per day devoted to student reading, 2) participation in the Accelerated Reader program, 3) student use of reading logs, 4) identification of and adherence to students’ zones of proximal development, and 5) teacher use of AR diagnostic reports for remediation purposes. The treatment groups within the study did not receive incentives nor rewards for their participation in the Accelerated Reader program. The researchers studied the STAR reading pre-test, midterm, and post-test scores and determined that students who had participated in the Accelerated Reader program had significantly higher rates of reading growth than students in the control groups. The greatest differences in gains were observed in grades 3 and 4, while the smallest differences in gains were observed in grades 5 and 6 (Nunnery et al., 2006).

Thompson, Madhuri, and Taylor (2008) conducted a qualitative study on the effectiveness of the Accelerated Reader program at a large, under-performing high school in southern California. Through a series of interviews with 144 students, Thompson, the lead researcher, noted several recurring themes surrounding AR. In this particular high school, all English teachers were not only required to implement AR in their classrooms, they were also required to tie it to student grades. All students were expected to participate in the program, and 15-20% of their grade for English was determined by the number of AR points they had accumulated. Through the interviews with the focus groups, the researchers saw two themes prevail:
1. The way the program was being used had been counterproductive and had actually made some students who had previously loved reading develop an aversion to recreational reading.

2. The program had led to widespread cheating on the required tests.

(Thompson et al., 2008; p. 554)

Students went on to include the following complaints: 1) amount of reading required was unrealistic and too time consuming, 2) students did not like being “forced” to read, 3) they did not enjoy the book selections, 4) they resented their course grade being tied to earning points for reading, and 5) they disliked having to pass tests to earn points (Thompson et al., 2008; p. 554).

Students complained that the amount of reading required was unrealistic, especially due to the fact that they were not given time in class to read and were expected to take quizzes during their free time. Students also did not like being forced to read, and some stated that the program had decreased their motivation to read. Students also criticized the library’s limited book selection and complained about the lack of both multicultural and low-readability, high-interest level books. Some students claimed that the higher the student’s reading level, the fewer books there were to choose from. Students also criticized the AR quizzes, noting that some questions were very detail-oriented and that some students simply are not good test-takers. Finally, the vast majority of focus group students agreed that tying their participation with AR to their English grades was unfair and added yet another stress to their lives. Through the use of qualitative data, the researchers make the following recommendation: “The findings in this study imply that providing book choice, relevancy, and time within the school day are significant components that must also be addressed” (Thompson et al., 2008; p. 559).
Pappas, Skinner, and Skinner (2010) investigated the effects of grouping students together to achieve goals while participating in the Accelerated Reader program. The researchers described the importance of student choice in academic environments and asserted that students should be allowed to choose their own reading material in order to increase reading achievement. The authors suggested that poor readers are much more likely to “choose to engage in competing behaviors (e.g., watch a situational comedy on television) that results in higher rates and more immediate reinforcement than a rapid reader” (Pappas et al., 2010; p. 888). Such students who possess poor reading skills may not benefit from the Accelerated Reader program because they may feel that the “effort required to read may not be worth the reinforcement they receive for reading. Therefore, students with weaker reading skills may need more powerful reinforcement to cause them to choose to read AR books” (Pappas et al., 2010; p. 890). Fourth grade students in three classrooms who had participated in AR for the entire school year were told that an extra incentive would be included if the entire class reached the goals set for them. The three classroom teachers agreed upon classroom rewards, which included incentives such as ice cream and popcorn parties, extra free time, and arts/crafts day. Students were given 30 minutes each day for independent reading and were encouraged to read when they completed other work. At the end of each week, each teacher drew a reward if the class had met the predetermined class goal. If the class had not met the goal, no reward was drawn, and the teacher reminded them that they could earn the reward the next week. One classroom participated in the study for four weeks, one for five weeks, and one for six weeks. Classroom teachers gathered data from the Accelerated Reader program each week and provided it to the researchers, who then used ANOVA tests to analyze the data. When analyzing the data, the researchers placed students into three ability level groups. They found that the added group
incentive had the greatest impact on the lowest-achieving reading group, as they took and passed more quizzes than they ever had in the past. This increase, however, was short-lived and did not last for the entirety of the intervention.

Mallette, Henk, and Melnick (2004) described the gap that exists in the educational literature regarding the Accelerated Reader program. In their quantitative study, the researchers noted that “This gap in the literature is important because children’s attitudes toward reading and how they feel about themselves as readers could clearly influence future literacy behavior. That is, attitudes and self-perceptions might affect whether reading would be sought or avoided, the amount of effort that would occur during reading, and how persistently reading comprehension would be pursued” (Mallette et al., 2004; pp. 75-6). This study, which was grounded in Bandura’s Self-Efficacy Theory (1977), raises awareness of the way children view themselves as readers and identifies four basic factors that influence a child’s sense of literacy self-perception: 1) progress (past performance compared with present), 2) observational comparison (how they compare to classmates), 3) social feedback (verbal and nonverbal cues from teachers, parents, and other children about their reading ability), and 4) physiological states (how they feel when engaged in reading). The researchers claimed that three of these factors (progress, observational comparison, and social feedback) that influence a child’s sense of self-efficacy are influenced by the Accelerated Reader program. Because of its “very public and visible nature” (Mallette et al., 2004; p. 76), AR is a program that is steeped in social interaction. Thus, AR has the potential to make strong readers feel more confident in their reading abilities, while making striving readers feel less confident. The researchers sought to determine what influence AR had on the reading attitudes and self-perceptions of intermediate students. Their study included 358 fourth and fifth graders in two adjacent school systems. At one school, the AR program was their sole reading
program, and students were expected to participate in one full hour of AR activities per day. At the other school, AR was a supplementary program, only used during free time, and reading instruction was literature-based, using novel unites. At the end of the year, students took two surveys that measured reading attitudes and self-perception, and the researchers used MANOVA and ANOVA analyses to measure the results. The results suggested that “AR positively influences attitudes toward Academic Reading but not Recreational Reading” (Mallette et al., 2004; p. 82). Additionally, the study suggests that the social nature of the program caused lower-achieving students to have a lower self-perception of themselves as readers.

Pavonetti, Brimmer, and Chipieleski (2003) concluded that the incorporation of a silent reading program did positively affect the reading habits of adolescents. However, the study fell short in attributing these positive effects to the commercialized Accelerated Reader program. In this study, participants included 1536 students from three school districts. The researchers pointed out several concerns with the Accelerated Reader program, including the fact that students only choose to check out certain library books because they were included on the AR quiz list, the lack of AR quizzes for certain books, the widespread potential for cheating, and expensive start-up costs for schools. The study focused upon Renaissance Learning’s claim that the Accelerated Reader program creates lifelong readers. Skeptical of this claim, the researchers sought to determine if students who had previously participated in the AR program were able to recognize more titles than those students who had not participated in the program. The researchers gave participants a Title Recognition Test (TRT) which was used to measure student awareness of real titles versus bogus titles and phrases, or foils. They concluded that, once they reach middle school, those students who used the Accelerated Reader program in elementary school do not read more than their peers who had never used the AR program. Contrary to
Renaissance Learning’s claim that the Accelerated Reader program creates lifelong readers, the researchers concluded that students who did not use the program in elementary school read more than their peers, who had used the program, once they reach middle school (Pavonetti, et al., 2007).

Moyer (2006) studied the use of Accelerated Reader with special education students in a high school in New Jersey. This action research study lasted three years and began with 69 ninth and tenth graders. Students were required to read one book during the first grading period, and goals were established using the STAR assessment data for subsequent terms. Students who reached their goals received various incentives, such as pizza parties and field trips to a bookstore. At the end of the first year, teachers indicated that they could see reading improvement beginning to take place, even though the data did not reflect such. Teachers then implemented small changes within the program during the second year. Students were given the opportunity to set their own reading goals as well as the chance to create quizzes for non-AR books. Results from the second year showed similar results to the first year, with only a 4% growth in reading achievement. The study concluded after the third year of students participating in the program. The researcher concluded that AR was effective in raising excitement toward reading; yet, little empirical evidence was given because the study was published before the third year was completed.

Rodriguez (2007) compared English Language Arts California Standardized Test scores for five groups of 8th graders. Participants of this study included 180 students from a Title I middle school in San Diego, California, wherein 50% of the student population qualified for free or reduced lunch, 75% had a Hispanic background, and 15% had a Filipino-American background. All students within the school were required to participate in the AR program and
were given grades based upon the percentage of the goal they met. The data revealed that students who had the highest rates of participation in the AR program performed better than their classmates who had lower participation rates. The researchers concluded that strong participation in the AR program can improve reading comprehension and thus lead to higher scores on the literary analysis portions of standardized tests (Rodriguez, 2007).

**Striving Readers: Implications Beyond High School**

Basic reading instruction at the college level is virtually non-existent (Armstrong & Newman, 2011; Pang, 2009; Simsek & Balaban, 2010). College students are dropping out of public schools at an alarming rate, and few efforts are being made to prevent this from occurring (Dean & Dagostino, 2007; DeWitz, Woolsey & Walsh, 2009; Dunston, 2007). Even more alarming than these staggering numbers are the attitudes of many university educators, who believe that they hold no responsibility for these students. The departmentalization inside of colleges often negatively impacts students, particularly those who graduate high school with reading deficits. Colleges that do provide remedial literacy courses often assign adjunct instructors who have had little literacy training to these courses (Lei et al., 2010; Nash-Ditzel, 2010).

Unfortunately, most college students with reading deficiencies do not receive structured literacy support within the confines of the college classroom. While the infusion of metacognitive strategies has been documented as an important component within the daily regimen of literacy activities for K-12 students, few studies had been published on the results of teaching metacognitive strategies to college students. This essay provides a brief review of recent literature supporting the direct instruction of metacognitive strategies to college students with reading difficulties (DeWitz et al., 2009; Dunston, 2007).
The global economy with its focus upon technology has resulted in a shifting paradigm within the workplace. The world is changing at a rapid pace, and such changes demand a change in the workforce. Such a shift can be seen in the declining role of manufacturing jobs over the past 50 years. During the 1950’s nearly 50% of America’s workforce was comprised of “blue-collar” manufacturing positions, jobs that account for fewer than 10% of American jobs today (Jerald, 2009). While it may be true that the average reading scores for 17 year olds have not significantly changed since 1971 (Rampey, Dion & Donahue, 2009), the fact is that the literacy demands within the workplace have greatly changed since 1971 (Pitcher et al., 2010).

Recognizing the need for reading intervention programs at the secondary level, many secondary educators may not know how to choose students for their intervention program. Before effective change can occur within secondary language arts programs, educators must first evaluate both successful and unsuccessful reading intervention programs (Jenkins et al., 2007; Lane, Fletcher, Careter, Dejud, and DeLorenzo 2007; Reynolds et al., 2007). If not addressed, literacy problems follow striving adolescent readers into post-secondary education and employment. Thus, reading instruction at the collegiate level has become a major issue for many post-secondary schools across the United States.

When faced with the rigors of content-area teaching within the content area classroom, many secondary teachers do not consider reading instruction their responsibility. As a result, many students do not possess the reading skills necessary to be successful (Beaufort, 2009; Collins et al., 2008; Simsek & Balaban, 2010; Voge, 2011). With the concentration of reading specialists and coaches remaining at the K-5 grade levels, many secondary administrators and teachers face the challenge of improving student reading performance without having a reading background (Nash-Dietzel, 2010; Pang, 2009). In order to address the issue of low literacy skills
at the secondary level, these same educators must begin to recognize literacy skills training as part of their instructional responsibilities.

Historically, educational research has focused upon elementary populations when conducting studies about literacy instruction (Alvermann & Moore, 2011; Cantrell & Carter, 2009; Faggella-Luby & Deshler, 2008). As suggested by the National Assessment of Educational Progress (NAEP) report (2011), only 34% of our nation’s eighth graders read at a proficient level, thus leaving 66% scoring below proficiency. Due to the evolving job market within this global economy and the world’s transitioning from an Industrial Age to an Information Age, the need for proficient reading skills are more important than at any other time in history (Daggett & Hasselbring, 2007; Peterson et al., 2011). Thus, if America is going to remain competitive with other global economies, our schools must be able to produce graduates who are capable of comprehending.

**Summary**

This study adds to the limited base of research that currently exists on adolescents’ comprehension through the incorporation of self-selected reading materials and utilizing the concept of zone of proximal development. The purpose of this quantitative, causal comparative study is to determine the possible effects of participating in an independent reading program on the reading achievement of eighth graders. This information will assist schools in determining what types of literacy activities to incorporate into their traditional high school English curriculum. This literature review is an attempt to close the gap in literature regarding the use of an independent reading program and the possible effects it may have upon adolescent reading achievement, adolescent reading attitudes, and adolescent use of metacognitive strategies. The Accelerated Reader program can be a large investment for any school district, and more
empirical evidence is needed regarding its effectiveness. Because of the conflicting evidence, more research, particularly research that employs a true experimental design, is needed on the effectiveness of the Accelerated Reader program (Krashen, 2001; Biggers, 2001; Boucher, 2010; Brown, 2010; Focarile, 2005; Luck, 2010; Thompson et. al., 2008).
CHAPTER 3: METHODOLOGY

Introduction

This quantitative, causal comparative study was conducted to determine the effectiveness of incorporating an independent reading program into the traditional middle school English curriculum. Numerous studies exist revealing the positive effects that such programs, which incorporate student-selected reading materials and the observation of zones of proximal development, have upon young readers. The research is lacking, however, empirical studies that measure the benefits of independent reading programs within the middle and high school classrooms. Thus, this study seeks to fill the gap in the literature by determining the effects (if any) that the incorporation of an independent reading program may have upon adolescent reading achievement. The researcher used ex post facto data to gain empirical evidence comparing the effects that such programs may have on the reading achievement of adolescents. Chapter three includes a thorough description of the design of the study, data collection procedures, instrumentation, participant information, and data analysis procedures. An analysis of the data was used to compare the reading achievement of students enrolled in a traditional English class to the reading achievement of students enrolled in an English class that incorporates the Accelerated Reader program.

Problem Statement

The flattening of the world (Friedman, 2005) has led to demands for a more sophisticated workforce, thus raising standards for education throughout the country. In 2010, Virginia worked closely with college faculty, the College Board, ACT, American Diploma Project, and various business leaders to create new educational standards. These new standards placed a greater emphasis on nonfiction texts and content vocabulary. Virginia chose to adopt their own
more rigorous standards over the national standards contained in Common Core. Much like the Common Core standards, Virginia’s new standards focus upon nonfiction and informational texts. As a result of these new rigorous standards, whether Common Core or Virginia’s individualized standards, secondary teachers must realize their responsibility in teaching reading comprehension strategies. Because of increased standards, secondary schools in Virginia and across the nation will be searching for ways in which to raise reading achievement and improve literacy.

One method of improving literacy skills that has been widely accepted by secondary schools involves the use of a computer-based, independent reading program that includes student-selected books and the matching of books to students’ reading levels. One such program in which students choose their own books is Renaissance Learning’s Accelerated Reader program. The Accelerated Reader program, commonly referred to as AR, is a computer-based reading management program produced by the Wisconsin educational corporation Renaissance Learning. Through this program, students read appropriate grade-leveled books that fall within their zones of proximal development (ZPD) and take brief, plot-based quizzes on them.

As adolescents progress throughout school, independent reading practice becomes more infrequent. Without consistent, independent reading practice at their individual reading levels, adolescents who may have once struggled somewhat during their elementary years will likely fall further and further behind as they progress throughout their middle and high school years. With the increased expectations of student achievement that the new Common Core and other state standards bring, however, school divisions must be ever vigilant in choosing research-based practices that will yield the greatest gain in student achievement.
Purpose Statement

The purpose of this quantitative, causal comparative study was to determine the possible effects of participating in an independent reading program on the reading achievement of eighth graders. This information will assist schools in determining what types of literacy activities to incorporate into their traditional secondary English curriculum. The independent variable was defined as participation in the Accelerated Reader program, which is a computer-based, independent reading program that includes student-selected books and the matching of books to students’ reading levels. The dependent variable was defined as the scores of eighth grade students on the Spring 2013 Virginia Standards of Learning Grade 8 Reading Test.

Research Design

Within this quantitative research study, a causal comparative research design was used to determine the effects of an independent reading program upon adolescent reading achievement. Students within the control group were in a traditional English 8 classroom, where their daily reading assignments come from a literature anthology. Students within the treatment group participated in an English class that incorporated the Accelerated Reader program, a computer-based, independent reading program, into their traditional English 8 curriculum. Due to the nature of the study, the researcher was not able to control nor manipulate the variables that had occurred.

The following questions were addressed in this study.

Research Question 1. Is there a difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program versus those 8th graders who are not participating in an independent reading program?
Null hypothesis \((H_01)\). There is no statistically significant difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program versus those 8th graders who are not participating in an independent reading program.

Research Question 2. Is there a difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program when their participation is required and students are given a grade versus those 8th graders who are receiving rewards and incentives for their participation?

Null hypothesis \((H_02)\). There is no statistically significant difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program when their participation is required and students are given a grade versus those 8th graders who are receiving rewards and incentives for their participation.

Participants

The study included a random sample of 8th graders at three public middle schools in Virginia. The study included all students who were enrolled in an 8th grade English class during the 2012-2013 school year. School A included grades 5-8 and had an enrollment of 407 students, while School B included grades 6-8 and had an enrollment of 566 students. School C included grades 6-8 and had an enrollment of 465 students. The ethnic/racial composition of the student body within School A was as follows: 51% Caucasian, 42% African American, 4% Hispanic, and 3% Multi-race. The ethnic/racial composition of the student body within School B was as follows: 69% Caucasian, 22% African American, 1% Hispanic, and 8% Multi-race. The ethnic/racial composition of the student body within School C was as follows: 61% Caucasian,
34% African American, 2% Hispanic, and 5% Multi-race. Table 1 includes information about each school’s demographic data. All three schools were located within Region 8 of Virginia’s public school system and were located in rural areas. Of School A’s total of 407 students, 261 (63%) were eligible for free/reduced lunch. Of School B’s 566 students, 264 (46%) were eligible for free/reduced lunch. Of School C’s 465 students, 269 (57%) were eligible for free/reduced lunch. The schools were similar in nature, in that each county had one elementary, one middle, and one high school.

Table 1

Demographic Data of Schools

<table>
<thead>
<tr>
<th>Variable</th>
<th>School A (Non-AR)</th>
<th>School B (Graded AR)</th>
<th>School C (Reward AR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades in the school</td>
<td>5-8</td>
<td>6-8</td>
<td>6-8</td>
</tr>
<tr>
<td>School population (x)</td>
<td>407</td>
<td>566</td>
<td>465</td>
</tr>
<tr>
<td>8th graders participating in study (y)</td>
<td>93</td>
<td>175</td>
<td>156</td>
</tr>
<tr>
<td>Caucasian</td>
<td>42%</td>
<td>69%</td>
<td>61%</td>
</tr>
<tr>
<td>African American</td>
<td>31%</td>
<td>22%</td>
<td>34%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Multi-Racial</td>
<td>3%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Eligible for Free/Reduced Lunch</td>
<td>64%</td>
<td>46%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Setting

The three schools chosen for this study were selected based on their incorporation or non-incorporation of an independent reading program within their English curriculum as well as the similarities in their demographics, including population, ethnic make-up, and socio-economic
status. All three schools were accredited by the state of Virginia, and all three were under a mandatory improvement plan for meeting the guidelines of No Child Left Behind.

The treatment administered in this study was the independent reading program Accelerated Reader, commonly referred to as AR. AR is a computer-based reading management program produced by the Wisconsin educational corporation Renaissance Learning. Through this program, students read appropriate grade-leveled books and take brief, plot-based quizzes on them. In most cases, students take the STAR reading test (also produced by Renaissance Learning and sold in conjunction with the Accelerated Reader program); from the computer-generated results of this test, a reading level is determined. Students are supplied with a ZPD, or zone of proximal development, based upon their STAR score. Ideally, students would read books within their ZPD, ultimately targeting the upper end of this zone. Although points can be accumulated for quizzes with scores of either 60% or 70% and above (60% for quizzes containing 5 questions; 70% for quizzes containing 10 and 20 questions), students are encouraged to strive for a minimum of 85% accuracy. As students pass quizzes, points are accumulated.

School A did not incorporate an independent reading program into its English curriculum. School B and School C had included Accelerated Reader within their middle school and high school English classes for several years. The program was run in a similar manner throughout grades 1-12. Throughout all grades, it serves as a supplement to the school’s core reading/English program, which was comprised of a survey of literature within anthologies.

At the beginning of the 2012-2013 school year, all students in grades 6-8 within School B and School C took the STAR reading test. The STAR reading test consisted of 25 questions, and it took an average of 15 minutes to administer. It is a CLOZE-style activity in nature, whereby
students are provided with a sentence and are asked to choose the best word (out of four choices) to complete the sentence. The average length of the sentences varies, depending on the grade level of the student taking the assessment; however, at all levels, students are given longer passages (paragraphs rather than sentences) for the final 5 questions. The STAR test is timed, with questions 1-20 each having a 30-second limit and questions 21-25 having a 90-second limit.

After students in School B and School C took the STAR test, the school librarians printed out a summary report for the English teachers, then assisted them in assigning Accelerated Reader goals to students. The teachers and librarians utilized the goal setting chart, found within the Accelerated Reader program, to come up with student point goals. The individualized goals for grades 1-5 are based upon students being engaged in independent reading for 30 minutes per day for a 9 week period, while the individualized goals for grades 6-12 are based upon students being engaged in independent reading for 20 minutes per day for a 9 week period. Each parent was provided with a copy of the STAR Reading Parent report, which identified the student’s scaled score, grade equivalent score, percentile rank, percentile rank range, instructional reading level, and zone of proximal development (ZPD).

Students at School B and School C often utilized the school’s library to choose books to work toward their goal. Both schools (B and C) have subscribed to Accelerated Reader Enterprise, whereby the students have access to all the quizzes within Renaissance Learning’s database, which includes over 150,000 quizzes. Within grades 1-5, students accumulate points to earn extrinsic rewards, and participation in the program is completely optional. At School B, students in grades 6-12 are required to participate in the program, and they receive a test grade at the end of each quarter. The test grade equals the percentage of their goal that they reached. For example, if a student’s goal was 25 points per quarter, and he accumulated 12.5 points during
that quarter, his test grade for that particular quarter would be a 50%. If that same student accumulated 40 points during that quarter, his test grade for that particular quarter would be 100%. The teachers at School B have strict guidelines in place for the use of the Accelerated Reader program. For instance, students are required to have an AR book with them at all times, quizzes must be taken at school under the supervision of an adult, and they are not allowed to take quizzes on books that the class reads together. Thus, the students are expected to take quizzes on books that they have read independently. At School C, student participation in AR is voluntary, and rewards/incentives are received for reaching goals. Students accumulate points and receive rewards, such as pizza parties, Itune gift cards, gift cards from various other merchants, etc. Within grades 6-12 at both School B and School C, the Accelerated Reader program serves as a supplementary program to enhance their traditional English curriculum.

Instrumentation

**Accelerated Reader.** The treatment being administered in this study is the independent reading program Accelerated Reader, commonly referred to as AR. AR is a computer-based reading management program produced by the Wisconsin educational corporation Renaissance Learning. Through this program, students read appropriate grade-leveled books and take brief, plot-based quizzes on them. In most cases, students take the STAR reading test (also produced by Renaissance Learning and sold in conjunction with the Accelerated Reader program); from the computer-generated results of this test, a reading level is determined. Students are then supplied with a ZPD, or zone of proximal development, based upon their STAR score. Ideally, students would read books within their ZPD, ultimately targeting the upper end of this zone. Although points can be accumulated for quizzes with scores of 70% and above, students should strive for a minimum of 85% accuracy. As students pass quizzes, points are accumulated and
usually extrinsic rewards are earned (Groce & Groce, 2005; Stanfield, 2006; Thompson et al., 2008). Currently, several types of quizzes exist within the AR program. The most widely purchased and utilized quiz type is known as reading practice quizzes. These quizzes contain anywhere from 5 to 20 questions, depending upon the book’s level of difficulty, and are primarily plot-based recall questions. It is through the use of reading practice quizzes that points are accumulated within the AR system. The AR system will only allow students to take reading practice quizzes once, whether they pass or fail the quiz; however, teachers do have the option of deleting quiz results if they choose to do so. The second type of quiz available for purchase is the literacy skills quiz. These quizzes prove to be more difficult in nature, as they test higher-level thinking skills. Due to the level of difficulty of literacy skills quizzes, Renaissance Learning suggests that teachers use these quizzes for literature that have been traditionally taught within the classroom. Students taking literacy skills quizzes will not receive points for these, and the program allows the quizzes to be taken more than once. The third and final quiz type available in the AR program is the vocabulary quiz that incorporates the vocabulary found within particular titles (Renaissance Learning, 2011).

**Virginia Standards of Learning Grade 8 Reading Assessment.** The Virginia Standards of Learning Grade 8 Reading Test is a multiple choice test that Virginia’s students take near the end of 8th grade. The test includes 55 multiple choice questions derived from the 8th grade Standards of Learning. There are three reporting categories for the test, including: 1) use of word analysis strategies and word reference materials, 2) demonstration of fictional text comprehension, and 3) demonstration of nonfiction text comprehension. Of the 55 total questions, 10 are field test items and are not included in the scoring of the test. The Spring, 2013 administration of the VA SOL Grade 8 Reading Test was based upon the newly revised
standards from the 2010 Standards of Learning. These standards placed a greater emphasis on non-fiction texts and content vocabulary. According to the new standards, students must make inferences and draw conclusions from implied information presented.

Reliability and Validity. The assessment instrument used in this study was Virginia’s Standards of Learning Grade 8 reading test. Virginia’s Department of Education describes both the reliability and validity of the SOL tests in *Virginia Standards of Learning Technical Report* (2013). According to the report, the accepted reliability coefficient using Cronbach’s alpha was .70. For the eight-grade reading test, the reliability coefficient for the online reading test was .88, well above the accepted lower-limit of .70 (*Virginia Standards of Learning Technical Report*, 2013). The validity of the reading assessment proves that the tests are appropriate measures of the content being taught in Virginia classrooms. The Virginia Department of Education has established a website for teachers in which related content items are stored. Such instructional materials include: standards of learning, assessment blueprints, an enhanced scope and sequence for each content area, pacing guides, and curriculum framework. Teachers are provided with a testing blueprint that outlines each Standards of Learning test as well as pacing guides to ensure proper coverage of each skill (VDOE, 2014).

Procedures

The first item completed involved gaining approval from the Superintendent of the schools where the study was to be conducted. This permission was obtained from the three schools. After the dissertation committee approved the proposal, IRB approval from Liberty University was requested by the researcher. Following the obtaining of IRB approval, the researcher contacted the principals from the three schools and selected all 8th graders as participants from the three schools. Parental consent was not necessary, as the data was ex post
facto in nature. As soon as IRB approval is obtained from Liberty University, the researcher provided the superintendents and principals with a copy of the IRB approval. The three schools administered the Standards of Learning Grade 8 Reading Test (SOL) to all of their eighth graders in May, 2013.

**Data Collection**

Participants completed the Virginia Standards of Learning Reading Assessment in May, 2013. The school systems received SOL test results from the state of Virginia in mid-June, 2013. After receiving IRB approval from Liberty University on August 1, 2013, the researcher contacted the three principals of the schools and requested the data. The researcher then met with each principal individually and collected the copies of the Spring 2013 Virginia Standard of Learning Grade 8 Reading Test scores. Because this part of data collection and analysis was ex post facto in nature, no parental consent was necessary for this component of the study. After data was collected, the researcher asked each school’s eighth grade teachers to complete a survey (Appendix B) through the Survey Monkey website. The survey results were used to gain more information about classroom literacy procedures.

**Data Analysis**

The purpose of this quantitative, causal comparative study was to determine the possible effects of participating in an independent reading program on the reading achievement scores of eighth graders. The independent variable was defined as participation in an independent reading program that included student-selected books and the matching of books to students’ reading levels. The dependent variable was defined as the scores obtained from the Virginia Standards of Learning Grade 8 Reading Test. Since there was neither manipulation of the independent variable nor random assignment of participants, a causal/comparison design was used to compare
the two groups. Since there was neither manipulation of the independent variable nor random assignment of participants, a causal/comparison design was used to compare the two groups. A t-test for independent samples was used to determine if there was a significant difference between the means of the groups (Ary et al., 2006; Campbell & Stanley, 1963).

The researcher used a $p<.05$ level of significance throughout the study in order to reject or fail to reject the null hypotheses. Because sampling errors decrease as the sample size increases (Ary et al., 2006), the researcher used the largest sample size available at the eighth grade level. In addition, the researcher determined the effect size by using the statistical information associated with Cohen’s $d$ (1988). To address research question #1, the researcher combined the individual scores from school B and school C onto a spreadsheet prior to entering them into the SPSS statistical software package. The scores from school B and C, both of which participated in the AR program, were then compared to the scores from School A, which did not participate in the AR program. An independent samples t-test was then performed on the two sets of data. To address research question #2, the researcher compared scores from school B, which made participation in AR mandatory and for a grade, to the scores from school C, which made participation in AR voluntary and for incentives and rewards. The comparison of these scores reflected the effects (if any) that an independent reading program has upon adolescent literacy.

**Summary**

Eighth grade populations were be chosen from the three public schools in Virginia, two of which incorporated an independent reading program into their traditional English curriculum, and one that did not. After IRB approval was obtained through Liberty University, the researcher contacted the principals from the three schools and developed a plan to gather the data.
from the 2013 Grade 8 Reading SOL test. After receiving the scores, the researcher entered the data into an Excel spreadsheet and copied the information to the SPSS statistical software. For each research question, data from the schools were entered into SPSS, and variables were added to identify groups.
CHAPTER 4: FINDINGS

Chapter four includes an overview of the study, a justification for the design of the study, an explanation of data collection procedures, the data analysis procedures, and the results of the study. The purpose of this quantitative, causal comparative study was to determine the possible effects of participating in an independent reading program on the reading achievement of eighth graders. Specifically, this study sought to determine if the Accelerated Reader program was effective in raising the literacy achievement of secondary students. This information will assist schools in determining what types of literacy activities to incorporate into their traditional secondary English curriculum. The dependent variable in this study was student scores on the 8th grade Virginia Standard of Learning Reading Assessment, which was administered in the spring of 2013. The independent variable was as participation in the Accelerated Reader program, a computer-based, independent reading program that includes student-selected books and the matching of books to students’ reading levels.

Study Overview

The study took place in three rural, public middle schools in Virginia. School A was comprised of grades 5-8, while schools B and C were comprised of grades 6-8. A total of 424 eighth graders participated in the study. School A followed a traditional English 8 curriculum and did not incorporate an independent reading program within their English classrooms. School B did incorporate the Accelerated Reader program into its English curriculum. Student participation in the AR program was mandatory in School B, and students received a grade each quarter. The grade they received was based upon the percentage of their goal they met. School C also incorporated the Accelerated Reader program into its English curriculum. Student participation was voluntary, and students received rewards for meeting their goals.
Descriptive Statistics for Participant Demographics

A total of 424 students from three different middle schools participated in the study.

Table 2 exhibits an overview of School A’s student population. School A includes grades 5-8 and has a total student population of 407. A total of 93 students from School A participated in this study. School A’s total pass rate on the 2013 SOL reading test was 66.7%, and their failure rate was 33.3%

Table 2

Descriptive Statistics for School A Demographics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Socioeconomic Status</td>
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<tr>
<td>Eligible for Free/Reduced Lunch</td>
<td>261</td>
<td>64</td>
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<tr>
<td>Ethnicity</td>
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<td>African American</td>
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<td>Multi-Racial</td>
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</table>

Spring 2013 SOL Reading Pass Rates

<table>
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<tr>
<th>Pass Advanced</th>
<th>Pass Proficient</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>55</td>
<td>31</td>
</tr>
</tbody>
</table>

Table 3 exhibits an overview of School B’s student population. School B included grades 6-8 and has a student population of 566. A total of 175 students from School B participated in this study. School B’s total pass rate on the 2013 SOL reading test was 57.2%, and their failure rate was 42.8%.
Table 3

*Descriptive Statistics for School B Demographics*

<table>
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<th>Variable</th>
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</thead>
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<td>Hispanic</td>
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<td>1</td>
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<tr>
<td>Multi-Racial</td>
<td>43</td>
<td>8</td>
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<tr>
<td>Spring 2013 SOL Grade 8 Reading Pass Rates</td>
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<td></td>
</tr>
<tr>
<td>Pass Advance</td>
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<td>5.71</td>
</tr>
<tr>
<td>Pass Proficient</td>
<td>89</td>
<td>49.71</td>
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<tr>
<td>Fail</td>
<td>75</td>
<td>42.86</td>
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</table>

Table 3 exhibits an overview of School C’s student population. School C included grades 6-8 and has a total student population of 465. A total of 156 students from School C participated in this study. School C’s total pass rate on the 2013 SOL reading test was 64.8%, and their failure rate was 35.2%.
Table 4

*Descriptive Statistics for School C Demographics*

<table>
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<th>Variable</th>
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</thead>
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<tr>
<td>Eligible for Free/Reduced Lunch</td>
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<td>57</td>
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<td>Ethnicity</td>
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<tr>
<td>Caucasian</td>
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</tr>
<tr>
<td>Hispanic</td>
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<td>2</td>
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<tr>
<td>Multi-Racial</td>
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<td>8</td>
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<tr>
<td>Spring 2013 SOL Reading Pass Rates</td>
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<td></td>
</tr>
<tr>
<td>Pass Advanced</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Pass Proficient</td>
<td>92</td>
<td></td>
</tr>
<tr>
<td>Fail</td>
<td>55</td>
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</table>

**Data Analysis**

The purpose of this quantitative, causal comparative study was to determine the possible effects of participating in an independent reading program on the reading achievement scores of eighth graders. The independent variable was defined as participation in an independent reading program that included student-selected books and the matching of books to students’ reading levels. The dependent variable was defined as the scores obtained from the Virginia Standards of Learning Grade 8 Reading Test. Since there was neither manipulation of the independent variable nor random assignment of participants, a causal/comparison design was used to compare the two groups. Since there was neither manipulation of the independent variable nor random assignment of participants, a causal/comparison design was used to compare the two groups. A t-test for independent samples was used to determine if there was a significant difference between
the means of the groups (Ary et al., 2006; Campbell & Stanley, 1963). The independent samples t-test was the most appropriate statistical test to employ for this study due to the causal-comparative nature of the study’s design and the use of ex post facto, or archival, data. The independent samples t-test assisted the researcher in determining whether the difference in the mean scores of the two groups occurred purely by chance or if the Accelerated Reader program (the independent variable in the study) could have caused it.

After the scores were obtained from the three principals, the researcher entered the data into an Excel spreadsheet. Each school’s scores were entered into a different worksheet within the program. The researcher then used the data from the Excel files to import the data into IBM’s SPSS Statistics, Version 21 software. The researcher used a $p < .05$ level of significance throughout the study in order to reject or fail to reject the null hypotheses. Because sampling errors decrease as the sample size increases (Ary et al., 2006), the researcher used the largest sample size available at the eighth grade level. In addition, the researcher determined the effect size by using the statistical information associated with Cohen’s $d$ (1988). To address research question #1, the researcher combined the individual scores from school B and school C onto a spreadsheet prior to entering them into the SPSS statistical software package. The scores from school B and C, both of which participated in the AR program, were then compared to the scores from School A, which did not participate in the AR program. The data were then screened for normality and for outliers. After histograms were created, an independent samples t-test was then performed on the two sets of data. To address research question #2, the researcher compared scores from school B, which made participation in AR mandatory and for a grade, to the scores from school C, which made participation in AR voluntary and for incentives and rewards. The comparison of these scores reflected the effects (if any) that an independent
Research Questions and Hypotheses

Research Question 1. Is there a difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program versus those 8th graders who are not participating in an independent reading program?

Null hypothesis ($H_0$1). There is no statistically significant difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program versus those 8th graders who are not participating in an independent reading program.

An independent samples t-test (Ary et al., 2006; Howell, 2010) was performed to determine if there was a significant difference between the independent variable, participation in an independent reading program, and the dependent variable, student scores on the VA SOL grade 8 reading test. First, the data were analyzed and screened for outliers. The researcher created histograms for each set of scores to assess normality. Four histograms were created for four specific groups: 1) School A, 2) School B, 3) School C, and 4) Schools B and C combined.

Research question 1 sought to determine if there was a statistically significant difference in reading achievement between eighth graders who did participate in the Accelerated Reader program and those who did not. All data calculations were performed using IBM’s SPSS Statistics, Version 21 software. Data from all three schools were entered into SPSS, then a variable (AR or non-AR) was added to identify groups. Scores from School A (non-AR school) were compared to the combined scores of School B and School C (both AR schools). Two groups were defined within SPSS, AR and non-AR.
The descriptive statistics for the non-AR set of data were as follows. A total of 93 test scores included a Mean of 416.2581, with a Standard Error of Mean of 5.99208. The Median was 419.0000, the Mode was 413.00, the Standard Deviation was 57.78557, and the Variance was 3339.172. The data was tested for normality. Skewness for the non-AR group was -0.054 with a standard of error of 0.250. Thus, the skewness range for this group of data was -0.5 to 0.5. Since the non-AR group’s skewness value of -0.054 fell within this range, it can be assumed that the non-AR group’s set of data as normally distributed. The Kurtosis for the non-AR group was 0.272, with a standard of error of 0.495. The Kurtosis range for this group of data was -0.99 to 0.99. Since the Kurtosis value of 0.272 fell within that range, it further supports the normality of the data. Figure 1 displays a distribution of the non-AR group’s scores.

Figure 1: Distribution of School A Scores
The descriptive statistics for the AR set of data were as follows. A total of 330 test scores included a Mean of 415.1515, with a Standard Error of Mean of 2.95229. The Median was 422.0000, the Mode was 452.00, the Standard Deviation was 53.63097, and the Variance was 2876.281. The data was tested for normality. Skewness for the AR group was -0.129 with a standard of error of 0.134. Thus, the skewness range for this group of data was -0.268 to 0.268. Since the AR group’s skewness value of -0.129 fell within this range, it can be assumed that the AR group’s set of data as normally distributed. The Kurtosis for the AR group was -0.151, with a standard of error of 0.268. The Kurtosis range for this group of data was -0.536 to 0.536. Since the Kurtosis value of -0.151 fell within that range, it further supports the normality of the data. Figure 2 displays a distribution of the AR group’s scores.

![Figure 2: Distribution of School B and C Scores Combined](image-url)
Table 5 includes descriptive statistics for both the AR and non-AR group. The mean score for the non-AR group was 416.26, while the mean score for the AR group was 415.15. Thus, the mean for the non-AR group was slightly higher than the mean for the AR group. Descriptive statistics for the two groups are identified in Table 5.

Table 5

*Descriptive Statistics by Group*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR</td>
<td>330</td>
<td>415.1515</td>
<td>53.63094</td>
</tr>
<tr>
<td>non-AR</td>
<td>93</td>
<td>416.2581</td>
<td>57.78557</td>
</tr>
</tbody>
</table>

An independent samples $t$-test was performed on the data. Data from all three schools were entered into SPSS, and a variable (AR or non-AR) was added to identify groups. Scores from School A (non-AR school) were compared to the combined scores of School B and School C (both AR schools). Two groups were defined within SPSS, AR and non-AR.

Levine’s Test for Equality of Variance was .721 for this group of data. Since this value was larger than the p-value of .05, equality of variance can be assumed. The results from the independent samples $t$-test, assuming equal variances, were as follows: $t(421) = 0.173$, $p = 0.863$. The two groups did not demonstrate a statistically significant difference, with significance at $p = 0.05$. Thus, researcher failed to reject null hypothesis 1. Table 6 shows the results for the $t$-test and reveals that there was no statistically significant difference between the AR group and the non-AR group when evaluated with a significance level of $p = .05$. 

97
Table 6

*Independent t-test for Research Question 1*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR</td>
<td>330</td>
<td>415.1515</td>
<td>53.63094</td>
<td>2.95229</td>
<td>-0.173</td>
<td>0.863</td>
</tr>
<tr>
<td>non-AR</td>
<td>93</td>
<td>416.2581</td>
<td>57.78557</td>
<td>5.99208</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Research Question 2.** Is there a difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program when their participation is required and students are given a grade versus those 8th graders who are receiving rewards and incentives for their participation?

**Null hypothesis (H₀2).** There is no statistically significant difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program when their participation is required and students are given a grade versus those 8th graders who are receiving rewards and incentives for their participation.

Research question 2 sought to determine if there was a statistically significant difference in reading achievement between eighth graders who were required to participate in the Accelerated Reader for a grade and those who voluntarily participated in the Accelerated Reader program for rewards and incentives. All data calculations pertaining to this research question were performed using IBM’s SPSS Statistics, Version 21 software. Data from the two schools were entered into SPSS, then a variable (Graded AR and Reward AR) was added to identify groups. Scores from School B (Graded-AR school) were compared to the scores of School C.
Two groups were defined within SPSS, Graded-AR and Reward-AR.

Table 7

**Descriptive Statistics AR-Grade and AR-Reward**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR-Grade</td>
<td>175</td>
<td>410.6743</td>
<td>58.19579</td>
</tr>
<tr>
<td>AR-Reward</td>
<td>156</td>
<td>419.2308</td>
<td>49.02611</td>
</tr>
</tbody>
</table>

Table 7 includes the descriptive statistics for graded and reward groups. The descriptive statistics for the Graded AR set of data were as follows. A total of 175 test scores included a Mean of 410.67, with a Standard Deviation of 58.20. The Median was 415.00, the Mode was 428, the Standard Deviation was 57.341, and the Variance was 3287.986.

Skewness for the Graded AR group was -0.175 with a standard of error of 0.184. Thus, the skewness range for this group of data was -0.368 to 0.368. Since the Graded AR group’s skewness value of -0.175 fell within this range, it can be assumed that the AR group’s set of data as normally distributed. The Kurtosis for the Graded AR group was -0.228, with a standard of error of 0.366. The Kurtosis range for this group of data was -0.732 to 0.732. Since the Kurtosis value of -0.366 fell within that range, it further supports the normality of the data.
The descriptive statistics for the AR-Reward set of data were as follows. A total of 156 test scores included a Mean of 419.2308, with a Standard Error of Mean of 3.92523. The Median was 422.00, the Mode was 452, the Standard Deviation was 49.02611, and the Variance was 2403.559.

Skewness for the AR-Reward group was -0.044 with a standard of error of 0.194. Thus, the skewness range for this group of data was -0.388 to 0.388. Since the AR-Reward group’s skewness value of 0.044 did not fall within this range, it cannot be assumed that the AR-Reward group’s set of data was normally distributed. The Kurtosis for the AR-Reward group was -0.264, with a standard of error of 0.386. The Kurtosis range for the AR-Reward group of data was
-0.772 to 0.772. Unlike the data set’s skewness results, the Kurtosis value of -0.264 fell within that range, thus supporting the normality of the data.

Figure 4: Distribution of School C Scores

An independent samples $t$-test was performed on the data. Data from both schools were entered into SPSS, and a variable (AR-Grade and AR-Reward) was added to identify groups. Scores from School B (AR-Grade school) were compared to the scores of School C (AR-Reward school). Two groups were defined within SPSS, AR-Grade and AR-Reward. Levine’s Test for Equality of Variance was 0.047 for this group of data. Since this value was smaller than the p-value of .05, equality of variance cannot be assumed. Descriptive
statistics for the two groups are identified in Table 4. The results from the independent samples
t-test, not assuming equal variances, were as follows: $t(329) = 1.451, p = 0.148$. The two groups
did show a statistically significant difference, with significance at $p = 0.05$. Thus, researcher
rejected the null hypothesis.

Table 8

*Independent t-test for Research Question 2*

<table>
<thead>
<tr>
<th>Group</th>
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<th>Std. Deviation</th>
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<tr>
<td>AR-Grade</td>
<td>175</td>
<td>410.6743</td>
<td>58.19579</td>
<td>4.39919</td>
<td>-1.451</td>
<td>0.148</td>
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<tr>
<td>AR-Reward</td>
<td>156</td>
<td>419.2308</td>
<td>49.02611</td>
<td>3.92523</td>
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<td></td>
</tr>
</tbody>
</table>

Summary

The purpose of this study was to answer the following questions: 1) Is there a
statistically significant difference in the reading comprehension rates of 8th graders on the
Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an
independent reading program that incorporates the students’ zone of proximal development and
the self-selection of books versus those 8th graders who are not participating in an independent
reading program? and 2) Is there a statistically significant difference in the reading
comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test
(SOL) when participating in an independent reading program if their participation is required and
students are given a grade versus those 8th graders who are receiving rewards and incentives for
their participation? The results of this study indicated that there was a statistically significant
difference between the groups. No statistical evidence could be found that AR had any influence
on the reading comprehension scores of eighth grade students. However, a statistically significant difference was found when comparing the group that participated in AR for a grade versus the group that participated in AR for rewards and incentives.
CHAPTER 5: DISCUSSION

The ability to read remains the most important factor in academic achievement. When young children are provided with choices in reading material, it increases student motivation and reading achievement. If young readers are provided with a rich, wide variety of reading material, they enjoy the freedom of exploring topics that interest them (Allington, 2001; Ecklund & Lamon, 2008; Jonsson-Smaragdi & Jonsson, 2006). Thus, their attitudes toward the act of reading are positive, and they are often willing to spend more time engaged in literary activities. Numerous studies show the positive effects of independent reading programs upon the literacy achievement of students in elementary school (Carter, 1996; Goodman, 1999; Johnson & Howard, 2003; Krashen, 2002; McQuillan, 1997; Melton et al., 2004; Nunnery, Ross & McDonald, 2006). However, as children progress through their school years, this freedom to choose their own reading material is usually replaced with strict reading requirements. By the time adolescents reach middle school, they usually are not afforded the opportunity to select their own books to read within their English classes. Instead, they are frequently provided with a list of literary classics found within their respective anthologies (Alger, 2007; Brinda, 2008; Eckert, 2008; Harmon et al., 2011). Their once positive attitude toward reading is now replaced with a negative attitude. Consequently, their time spent engaged in literacy activities is dramatically reduced. Without consistent, independent reading practice at their independent reading levels, adolescents who may have struggled during their elementary years will likely fall further and further behind as they progress throughout their middle and high school years. Demands for a more sophisticated workforce are raising standards for education throughout the country. Because of increased standards, secondary schools in Virginia and across the nation will be searching for ways in which to raise reading achievement and improve literacy. With the increased expectations of student achievement that the new Common Core
and other state standards bring, however, school divisions must be ever vigilant in choosing research-based practices that will yield the greatest gain in student achievement.

**Summary of Findings**

This quantitative, causal comparative study was conducted to determine the effectiveness of incorporating an independent reading program into the traditional middle school English curriculum. Numerous studies exist revealing the positive effects that programs such as Renaissance Learning’s Accelerated Reader or Scholastic’s Reading Counts have upon young readers. The research is lacking, however, empirical studies that measure the benefits of independent reading programs within the middle and high school classrooms. Thus, this study seeks to fill the gap in the literature by determining the effects (if any) that the incorporation of an independent reading program may have upon adolescent reading achievement. Ex post facto data was used to gain empirical evidence comparing the effects that such programs may have on the reading achievement of adolescents. The independent variable was defined as participation in an independent reading program that included student-selected books and the matching of books to students’ reading levels. The dependent variable was defined as the scores of eighth grade students on the 2013 Virginia Standards of Learning Reading Test.

The study took place in three rural, public middle schools in Virginia. School A was comprised of grades 5-8, while schools B and C were comprised of grades 6-8. A total of 424 eighth graders participated in the study. School A followed a traditional English 8 curriculum and did not incorporate an independent reading program within their English classrooms. School B did incorporate the Accelerated Reader program into its English curriculum. Student participation in the AR program was mandatory in School B, and students received a grade each quarter. The grade they received was based upon the percentage of their goal they met. School
C also incorporated the Accelerated Reader program into its English curriculum. Student participation was voluntary, and students received rewards for meeting their goals.

After IRB approval was received from Liberty University, the researcher contacted the principals of the three middle schools and requested the Spring 2013 Standards of Learning Grade 8 Reading Test. The following research questions were addressed: 1) Is there a statistically significant difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program that incorporates the students’ zone of proximal development and the self-selection of books versus those 8th graders who are not participating in an independent reading program? and 2) Is there a statistically significant difference in the reading comprehension rates of 8th graders on the Virginia Standards of Learning Grade 8 Reading Test (SOL) when participating in an independent reading program if their participation is required and students are given a grade versus those 8th graders who are either not participating in an independent reading program or receiving rewards and incentives for their participation?

When analyzing results for research question #1, the researcher combined the results from School B and School C (both AR schools) in order to compare them against School A (non-AR school). The data were analyzed using independent t tests. Using $p=0.05$ as the level of significance, the researcher ran an independent $t$ test to compare the non-AR group to the AR group, which resulted in $p=0.863$. Using the same significance level of $p=0.05$, the researcher ran the independent $t$ test once again to compare the Graded AR group to the AR Reward group, which resulted in $p=0.148$. The first independent samples $t$ test failed to find statistical significance in the use of the Accelerated Reader program. However, the second independent
samples $t$ test did find a statistical difference between the group using the AR program for a grade versus the group using the AR program for rewards and incentives.

**Discussion of Findings**

Reading is paramount to academic achievement, yet the departmentalization of secondary schools have led teachers to believe that they are not responsible for the literacy needs of their students (Alger, 2007; Adolescent Literacy, 2008; Ryan, 2008). Such specialization of middle and high school teachers provides students with instruction from educators who have been highly trained within the subject matter; yet, the departmentalization inside middle and secondary schools often negatively impacts students, especially those who enter high school with reading deficits (Alger, 2007; Witte, Beemer & Arjona, 2010). Such departmentalization has resulted in content area teachers believing that it their jobs do not involve teaching reading. Even more troublesome is the fact that, even though research reveals the benefits of teaching explicit reading comprehension strategies at the middle and high school level (Biancaros & Snow, 2004; Nichols, Young & Richelman, 2007), the vast majority of middle and secondary teachers do not use instructional time to teach such strategies (Ness, 2007). As a result of the low literacy skills of students and the lack of properly trained teachers, the majority of secondary schools are searching for solutions to help aid the adolescent literacy crisis, and many turn to computer-based, independent reading management systems such as Renaissance Learning’s Accelerated Reader.

The studies that have been published regarding the effectiveness of the Accelerated Reader program are conflicting. Although some studies exhibit the positive effect of increased time engaged in independent reading (Pavonetti, Brimmer & Cipielewski, 2003; Putnam, 2005), they nevertheless fail to attribute gains in reading achievement to the commercial program.
Critics are quick to question the lack of evidence-based data supporting the commercial programs (Allington, 2001; Balajthy, 2007; Goodman, 1999; Groce & Groce, 2005; Hansen, Collins & Warschauer, 2009; Krashen, 2002; Nunnery & Ross, 2007; Oppenheimer, 2007). It is difficult to argue that some aspects of Accelerated Reader, including the increased availability of reading materials and the increased time devoted to independent reading, are beneficial to students. While refusing to acknowledge that the reading gains demonstrated in their studies are an effect of the AR quizzes and rewards, many critics of the program suggest that other factors that accompany the AR program do contribute to greater reading achievement within secondary schools. Examples of such factors include the increase of interesting and grade-level appropriate reading materials and the increase in time devoted to independent reading (Anderson, 2001; McQuillan, 1997; Putnam, 2005).

One factor that could have affected results dramatically was the change in Virginia’s reading assessments, which began with this particular administration of the test (spring, 2013). The spring 2013 administration of the VA SOL Grade 8 Reading Test was based upon the newly revised standards from the 2010 Standards of Learning. In 2010, the state of Virginia worked closely with college faculty, the College Board, ACT, American Diploma Project, and various business leaders. These new standards placed a greater emphasis on nonfiction texts and content vocabulary. The state of Virginia chose to adopt their own more rigorous standards over the national standards contained in Common Core. According to Virginia’s standards, students must make inferences and draw conclusions from implied information presented. Much like the Common Core standards, Virginia’s new standards focus upon nonfiction and informational texts. As a result of these new rigorous standards, regardless of whether they are Common Core
or Virginia’s individualized standards, secondary teachers must realize their responsibility in teaching reading comprehension strategies.

Secondary schools in Virginia and across the nation will be searching for ways in which to raise reading achievement and improve literacy. The 2012-2013 test results from the three participating schools in this study show a sharp decline in reading achievement, and these results will be experienced throughout the country as stricter Common Core Standards go into effect. In 2011-2012, School A’s pass rate on the Virginia Standards of Learning Grade 8 Reading Test was 85.00%; in 2012-2013, their pass rate was 67.39%. In 2011-2012, School B’s pass rate on the Virginia Standards of Learning Grade 8 Reading Test was 94.9%; in 2012-2013, their pass rate was 57.39%. In 2011-2012, School C’s pass rate on the Virginia Standards of Learning Grade 8 Reading Test was 95.52%; in 2012-2013, their pass rate was 66.01%. Such a decline of scores will force school systems to re-evaluate how they handle adolescent literacy.

**Instructional Implications**

Although Renaissance Learning boasts of numerous studies supporting their Accelerated Reader program, most of the studies included on the website are not empirical in nature, nor were the majority of them performed by objective, third-party researchers. The company makes mighty boasts, claiming that “Self-selected reading at students' independent reading levels results in success, which spurs enthusiasm, higher attendance, fewer discipline problems, and better attitudes. Students will be motivated to read constantly” (Renaissance Learning, 2013). With the adoption of increased standards such as the national Common Core Standards and Virginia’s own more rigorous Standards of Learning (revised, 2010), the need to implement researched-based strategies designed to increase student achievement is more important than ever. Secondary schools must implement programs that will increase student achievement while
simultaneously preparing students for post-secondary education, whether college or career training. This study sought to determine if student participation in the Accelerated Reader program impacted student reading achievement. Statistically, it did not; however, it cannot be denied that there are positive elements to such a program, including an increase in the amount of time students spend engaged in independent reading.

Renaissance Learning’s Accelerated Reader program was never intended to be a stand-alone program, but rather a supplementary program used in conjunction with classroom reading instruction (Chenoweth, 2001; Groce & Groce, 2005). Unfortunately, most secondary teachers do not see themselves as reading instructors. Even though research reveals the benefits that accompany the incorporation of reading comprehension strategies at the middle and high school level (Biancaros & Snow, 2004; Nichols, Young & Richelman, 2007) the vast majority of middle and secondary teachers do not instruct students on mastering these strategies (Ness, 2007). Thus, literacy support within the secondary content area classroom is rarely available (Alger, 2007; Adolescent Literacy, 2008; Ryan, 2008; Witt et al., 2010). With increased standards for reading achievement, many secondary schools have turned to the Accelerated Reader program to improve literacy skills. In many instances, AR is not used as a supplementary program, because no reading instruction exists within the context of the secondary curriculum. Thus, AR is often not being used as it was created to be used at the secondary level. One such example can be found within this study, within School B, where participation in the AR program is mandatory and students receive a grade for attaining their goals.

Assumptions and Limitations

Assumptions. The researcher assumed that the teachers of these classes within School B and School C had received training based upon Renaissance Learning’s Best Practices Methods
and were using the program according to those guidelines. The researcher also assumed that both the treatment and control groups from all three schools received the same, standardized instructions and testing conditions when taking the SOL test.

**Limitations.** There were several limitations observed in the study. It is possible that students in a non-program school may have participated in an independent reading program during previous years in school. This would be a limitation because their experience with the independent reading program prior to their 8th grade year may have affected their results. Another limitation involved the use of only one grade level within the study, as the results may or may not be generalized among other grade levels. The results from the study may be limited to rural Virginia, as all three schools were located in rural areas of Virginia. Additionally, the nature of Virginia’s Standard of Learning Reading Assessment changed during the spring 2013 administration of the test. This was the first year that the new, more rigorous standards were tested. Therefore, it is possible that the results of this study were affected.

**Recommendations for Future Research**

More empirical evidence needs to be gathered on the effectiveness of the Accelerated Reader program at the secondary level. Therefore, it is recommended that future research is needed on the use of AR in both middle and high school classrooms. It would be helpful if future studies were published that were longitudinal in nature, tracking a group of students who used Accelerated Reader over a period of several years. It would also be beneficial to school systems if future studies compared the STAR reading results to their own state assessment tests. Determining whether or not the STAR test could serve as an accurate predictor of student performance on the stat assessments would be most beneficial to school systems. Because most of the research surrounding the Accelerated Reader program involves elementary-aged students,
future research should be focused upon secondary students. Studies with a true experimental design should be conducted. Such studies should closely examine classroom practices in order to determine if the results were a result of the treatment being received.

**Conclusion**

Literacy instruction and how it relates to academic achievement have become major issues for many secondary schools across the United States. When faced with the mandates associated with high-stakes testing within the content area classroom, many secondary teachers do not consider reading instruction their responsibility. As a result, many students graduate from high school and enter either college or the nation’s workforce without possessing the literacy skills necessary to be successful (Collins & Onwuegbuzie, 2008; Peterson et al., 2011; Simsek, 2010; Voge, 2011). Since most reading specialists and coaches remain at the lower grade levels, many secondary and post-secondary school administrators face the challenge of improving student reading performance without having a reading background (Nash-Dietzel, 2010; Pang, 2009). Although most secondary educators are content experts, they lack the formal training to instruct their adolescent students in reading (Diamond, 2006; Santa, 2006). The No Child Left Behind Act (2001) and the subsequent implementation of the Common Core Standards (2010) have forced secondary educators throughout the United States to take a closer look at the literacy weaknesses of their students.

In light of the need for secondary schools to prepare students for post-secondary education, whether that education is at the college or career level, further research needs to be conducted to determine if independent reading programs such as Accelerated Reader play a significant role in such preparation. The purpose of this quantitative, causal comparative study was to determine the possible effects of participating in an independent reading program on the
reading achievement of eighth graders. This study will assist in filling the gap in the literature surrounding the use of the Accelerated Reader program and secondary students. The information will assist schools in determining what types of literacy activities to incorporate into their traditional secondary English curriculum. The independent variable was defined as participation in the Accelerated Reader program, which is a computer-based, independent reading program that includes student-selected books and the matching of books to students’ reading levels. The dependent variable was defined as the scores of eighth grade students on the Spring 2013 Virginia Standards of Learning Grade 8 Reading Test. Based upon inferential statistics, the researcher failed to affirm that the Accelerated Reader program impacted student literacy achievement.
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U.S. Department of Education.


APPENDIX A: INSTITUTIONAL REVIEW BOARD EXEMPTION

August 1, 2013

Sarah Horn
IRB Exemption 1637.080113: The Effectiveness of Independent Reading and Self-Selected Texts on Adolescent Reading Comprehension: A Quantitative Study

Dear Sarah,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and that no further IRB oversight is required.

Your study falls under exemption category 46.101 (b)(4), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:

(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

Please note that this exemption only applies to your current research application, and that any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption, or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

Fernando Garzon, Psy.D.
Professor, IRB Chair Counseling

(434) 592-4054

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**APPENDIX B: PRELIMINARY TEACHER SURVEY**

**Independent Reading Program Teacher Survey**

*1. Please select your school.*
- [ ] Appomattox County Middle School
- [ ] Buckingham County Middle School
- [ ] Central Middle School (Charlotte County)
- [ ] Cumberland County Middle School
- [ ] Nottoway County Middle School
- [ ] Prince Edward County Middle School

2. What is your name?

3. Number of 8th grade English classes currently teaching
   - [ ] 0
   - [ ] 1
   - [ ] 2
   - [ ] 3
   - [ ] 4
   - [ ] 5
   - [ ] 6
   - [ ] 7

4. Do you use the Accelerated Reader program in your 8th grade English classes?
   - [ ] YES
   - [ ] NO

5. Do you use Scholastic’s Reading Counts program in your 8th grade English classes?
   - [ ] YES
   - [ ] NO
Independent Reading Program Teacher Survey

6. If you do not use either of the above programs in your classes, is there another independent reading program that your students participate in? (Even if it is “teacher-made”) For the purposes of this study, "independent reading program" is defined as students reading books that they have chosen themselves.

☐ YES
☐ NO

7. If you do use some type of independent reading program that is NOT Accelerated Reader nor Scholastic’s Reading Counts, please describe it below. (Example: My students read one book of their own choosing every quarter, and they write a book report on it.)

If you do NOT use Accelerated Reader nor Scholastic's Reading Counts in your classroom, please skip the questions on page 2. You will need to continue onto page two in order to submit the survey; however, you will not need to answer any of the questions on page 2. Thank you so much for your responses!

If you DO use Accelerated Reader or Scholastic’s Reading Counts in your classroom, please answer all of the questions on page 2.
8. Do you establish reading goals for your students within the program?
   - YES
   - NO

9. Does each student in your class have the same goal or do goals vary?
   - All students have the same goals.
   - Student goals vary.

10. How do you determine student goals?
    - Students take a reading test (ex: STAR) and goals are based upon their performance on that test.
    - Goals are based upon whatever grade the student is in.
    - The teacher determines student goals based upon criteria OTHER than a standardized reading test.
    - OTHER

11. If you chose OTHER on the question above, please describe your method of determining student goals below.
    
12. Do students receive rewards and/or incentives when they meet their goals?
    - YES
    - NO

13. If you chose YES to the question above, please describe the incentives and/or rewards below.
    
14. Do your students receive a grade for participating in this independent reading program?
    - YES
    - NO
Independent Reading Program Teacher Survey

15. If you answered YES to the question above, please describe they way in which students are graded for their participation in the independent reading program (Example: They receive a test grade each marking period. Their test grade is the percentage of goal they met.)

16. Do you allow time in your class for students to read silently?
   - YES
   - NO

17. On average, what is the amount of class time you allot for silent, independent reading in your class each day?
   - 0-10 minutes
   - 11-20 minutes
   - 21-30 minutes
   - greater than 30 minutes

18. Do your students use their ZPD (zone of proximal development) when selecting books?
   - YES
   - NO

19. Please select ALL of the items that are true involving student quizzing at your school. (You may select more than one)
   - When students finish books, they immediately take their quizzes here in my classroom.
   - When students finish books, they immediately take their quizzes in another location (i.e. library, computer lab)
   - When students finish books, they must wait until we go (as a class) to a computer lab to take their quizzes.
   - When students finish books, they normally take their quizzes within a day or two of finishing it.
   - When students finish books, they may have to wait up to a week or more to take their quizzes.
20. Please select all that are TRUE to you and your classroom.

☐ Student goals are created based upon reading assessments (i.e. STAR reading test, or the Lexile framework)
☐ Students are encouraged to meet a minimum accuracy grade on their quizzes.
☐ Students receive a grade for participating in AR or Reading Counts.
☐ Students receive incentives for participating in AR or Reading Counts.
☐ I routinely take an "inventory" of what students are reading through things like “Status of the Class.”
☐ I know what a ZPD, or zone of proximal development is.
☐ My students use their ZPD’s when choosing books to read.
☐ My school’s library is organized in a way that enhances AR and/or Reading Counts (point values, interest levels, and reading levels are easily accessible).
☐ I feel that my students read MORE due to their participation in this independent reading program.