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THE BALANCED APPROACH TO LITERACY INSTRUCTION IN MIDDLE SCHOOLS

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ABSTRACT

The purpose of this study was to determine if the frequency with which middle school teachers implement research-based literacy strategies serves as a predictor of success on the English/language arts portion of ISTEP+. The study looked at research-based strategies in fluency, comprehension, and vocabulary. Teachers of English, language arts, social studies, science, and a combination of the above subjects were surveyed. Seven questions from each area were posed relating to the frequency of implementation per quarter. The study was split into two groups, high-poverty schools and low-poverty schools. Of those teachers surveyed, teachers in low-achieving, low-poverty schools reported using research-based fluency strategies more often than those in high-achieving, low-poverty schools. However, there was no significant difference between the frequency of implementation of research-based fluency strategies in high-achieving, high-poverty schools and low-achieving, high-poverty schools. Statistical significance was found with the reported implementation of research-based comprehension strategies among low-achieving schools compared to high-achieving schools among the high-poverty schools in this study. There was no significant difference in the frequency of implementation of comprehension strategies in low-achieving, low-poverty schools compared to high-achieving, low-poverty schools. The reported implementation of research-based vocabulary strategies was not significant among low-achieving schools compared to high-achieving schools among the low-poverty schools in this study. Likewise, the reported implementation of research-based vocabulary strategies was not significant among low-achieving schools compared to high-

achieving schools among the high-poverty schools in this study. It was predicted that the ELA ISTEP+ pass rate decreased by .509 for every one percentage increase in the free and reduced lunch percentage while holding all other variables constant.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

The educational landscape is currently undergoing many changes. The alterations are in response to numerous findings indicating deficits with literacy achievement at the secondary level (National Association of Secondary School Principals [NASSP], 2005). According to studies by the National Assessment of Educational Progress (NAEP), American students in middle school and high school are not reaching the level of anticipated proficiency in reading. In fact, secondary reading scores continue to fall flat when compared with the rest of the world. (National Center for Educational Statistics [NCES], 2001). "The Alliance for Excellent Education noted that approximately six million middle school students have very low literacy levels that not only affect their achievement in English and language arts classes but also make it very difficult for them to master content in other subjects" (MacIver et al., 2004, p. 185).

For several decades, the focus of urgency for literacy development has been in the primary grades up to third grade. Literacy specialists such as Gay Su Pinnell, Irene C. Fountas, and Marie Clay have provided a plethora of insight into teaching literacy to students in primary and intermediate grades, however, little research or insight has been forthcoming when it comes to transitioning from intermediate to middle school, specifically Grades 6-8. Irvin, Meltzer, and Dukes (2007) claimed that recent policy reports, such as Biancarosa and Snow's (2006) *Reading Next: A Vision for Action* and *Research in Middle and High School Literacy*, as well as *Reading*

Between the Lines: What the ACT Reveals About College Readiness in Reading, prepared by the American College Test (ACT; 2006) have finally pressured leaders and teachers into focusing attention on ensuring that middle school students have the ability to read and write at levels that enable them to compete in the 21st century. Beers, Probst, and Rief (2007) shared insight into scientific reading instruction for adolescents. They questioned when literacy instruction halts earlier than expected, how middle school students will attain the strategies necessary to read and comprehend text that contains abstract ideas. These students typically have mastered word attack skills but have very low comprehension (MacIver et al., 2004).

Direct instruction is necessary in the middle school years as students are expected to read and comprehend increasingly difficult text found in secondary textbooks. Tovani (2000) provided awareness into adolescent struggles to comprehend more difficult text. In addition, she focused on providing strategies to tackle difficult text across the curriculum with an emphasis on students who struggle. She noted there are limited amounts of support and professional development for middle school teachers in all curricular areas (Tovani, 2000). She furthered this point by indicating that teachers felt like they do not have enough professional development and support to fill their figurative tool box with strategies for teaching literacy (Tovani, 2000). She provided step-by-step research-based reading strategies in the areas of comprehension, vocabulary development, and fluency. She argued that middle school teachers must teach specific literacy strategies to help students find the most important information in the course text.

The Nevada Department of Corrections Education Services Newsletter in the spring of 2012 stated that

> poor literacy leads to unemployment, poverty, and crime. Eighty percent of all juveniles who come into contact with the juvenile court system are functionally illiterate as well as

> 60% of all prison inmates. Inmates have a 16% chance of returning to prison if they receive literacy help, as opposed to 70% for those who receive no help. (Nevada Department of Corrections, 2012, p. 1)

This equates, according to the study, to taxpayer costs of $25,000 per year, per inmate and nearly double that amount for juvenile offenders. The article, "Literacy Pulls People out of Poverty", (Communicating International Development Research, 2005), stated at least 1.2 billion poor people cannot read or write. Studies conducted by the Department for International Development have found clear evidence exists that once adults take part in literacy, the benefits extend beyond just the individual, but their children benefit, health and nutritional practices of their families are improved, they take an informed interest in protecting the environment, they show growth in their community capacity, and they exhibit greater awareness of their rights as a citizen (Communicating International Development Research, 2005).

The United Nations Education, Scientific, and Cultural Organization led a study on the impact of literacy on employment and found a strong correlation between illiteracy and unemployment. It also found that illiterate adults are more likely to be unemployed and are typically paid less and live in poverty (Communicating International Development Research, 2005). Additionally, the Center on Education Policy supported those findings by reporting that young people who fail or underperform in school are more likely to suffer from unemployment or drastically lower income levels throughout their lives (Carnegie Corporation, 2009).

Fang and Schleppegrell (2008) believed that improved literacy and interventions, even as late as middle school, will improve students' confidence and professional future. This better late than never philosophy demonstrates why educational leaders must make literacy across the curriculum a priority within middle school classrooms. For many decades, secondary teachers

and critics have placed the blame for adolescents' literacy problems on elementary teachers, but recent research suggests that middle school teachers must share in the accountability for providing sound literacy instruction (Wendt, 2013).

Statement of the Problem

As students enter middle school, teachers may assume the students already know how to read. In the report titled *Creating a Culture of Literacy* (NASSP, 2005) , 25% to 35% of the students entering secondary level grades are behind when it comes to reading and comprehending grade level texts (NASSP, 2005). Many skeptics believe that students at secondary levels did not get a solid foundation in phonics and phonemic awareness, but research found that the actual student deficits are in comprehension, lack of vocabulary development, little experience or prior knowledge, and no motivation to read. (NASSP, 2005). How can teachers' best support struggling students? What is the proper balance? Results from the 1998 NAEP showed that 60% of adolescents could comprehend specific factual information, but fewer than 5% could provide answers to higher level questions pertaining to the materials read (Zimmerman, 2003).

Although there are many expensive, big promise products on the market, no product can substitute for an experienced teacher who provides explicit literacy instruction across the curriculum (Wendt, 2013). The teacher must incorporate research-based strategies embedded in the day-to-day instruction and provide students with a sufficient amount of time to read during the day. Wendt (2013) stated much of the literacy research has focused on the elementary levels; secondary teachers find it more difficult to integrate literacy learning in the general curriculum. Popular authors such as Annette Breaux, Lucy Calkins, Doug Lemov, Mike Schmoker, and LouAnne Johnson have synthesized research to identify specific teacher behaviors that

contribute to student success. They place teacher drive and focus as the main attribute to student success rather than concentrating on things that cannot be controlled such as demographics, district leadership, and state mandates. Many non-core content area teachers feel that they lack the training and skills necessary to fully implement the teaching of literacy into their curriculum. Fang and Schleppegrell (2008) offered support to middle school teachers in learning about the challenges of language across content areas.

The achievement gap continues to be a concern across the United States. Early intervention strategies have shown some promise, but for many students, especially those with learning disabilities, literacy skills have remained below the threshold of basic skills. Nations Report Card reported that despite multiple initiatives to improve reading and literacy there were no significant improvements in average reading scores for adolescents from 2009 to 2011 (as cited in Wendt, 2013). These data are daunting, especially in the face of mandates such as those in No Child Left Behind that require all students to achieve basic mastery in grade-level content (Wendt, 2013).

Rose (2011) believed educators in all departments must begin recognize the growing literacy gap among adolescents and school leaders must provide training for all teachers to acquire the skills necessary to teach literacy across the curriculum. They must understand that mastery of any content cannot be accomplished without first providing a solid foundation in basic literacy skills. The Common Core State Standards Initiative places emphases on integrating literacy learning within contextual learning as a whole concept (Rose, 2011). The hope and promise with the Common Core State Standards Initiative is to help close this achievement gap.

Purpose of the Study

The purpose of this quantitative study was to determine if the frequency with which teachers of English, social studies, and science provide explicit instruction or implement strategies in the areas of fluency, comprehension, and vocabulary development serves as a predictor of success on the English/language arts portion of the Indiana Statewide Testing for Educational Progress Plus (ISTEP+) in middle schools. The study provides insight into the current literacy instruction in middle school, specifically those serving students in Grades 6 through 9 for the state of Indiana. There are five components of literacy: comprehension, fluency, phonemic awareness, phonics, and vocabulary development (D. Jones, 2013). Under Reading First (Title I, Part B, Subpart 1), district and school reading programs for elementary age students Kindergarten to Grade 5 must include instruction, curriculum, and assessment on the five components (D. Jones, 2013). With this in mind, students in Grade 6 and beyond may continue to require support in these areas with the exception of phonemic awareness and phonics because as mentioned earlier, studies show that students have developed a foundation in these areas by adolescence (Wendt, 2013). This expected level regarding reading foundational skills is evident in Common Core State Standards due to the fact that phonics and phonemic awareness are not embedded in standards above the fifth-grade level.

As represented in Figure 1, the study examined differences among teaching strategies and frequency of instruction in schools that have high poverty and high test scores with those that have high poverty and low test scores, as well as the differences among teaching strategies and frequency of instruction among schools with low poverty (affluent) and high test scores and low poverty and low test scores. The purpose was to determine if the frequency in the utilization of these strategies is significantly different. Socioeconomic status (SES) has been correlated in

many studies, The Bell Curve by Hernstein and Murray (1994) is one example, as a predictor of standardized test outcomes; therefore, it was utilized in this study to control for the variance explained in standardized test performance.

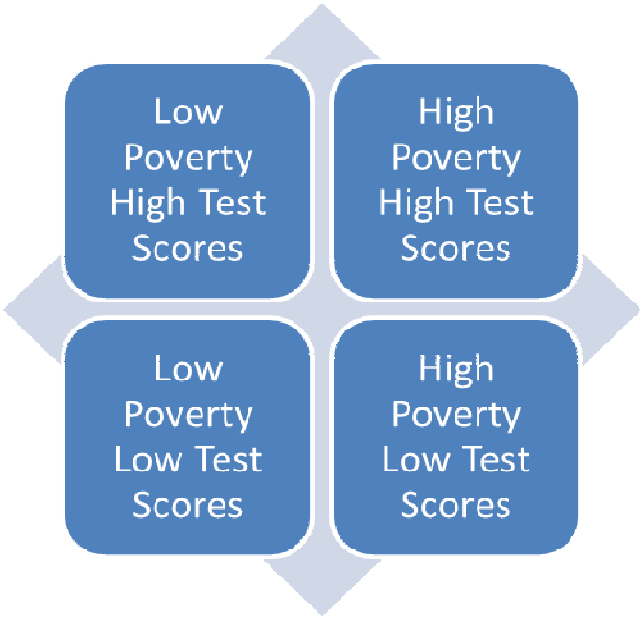

Figure 1. Quadrants of school types.

The study examined four quadrants. The first quadrant was Indiana schools with a three-year average proficiency rate on the English/language arts portion of ISTEP+ of 78.7% (state average pass percentage for the 2012-2013 ISTEP+ Assessment in English/language arts) or higher and an SES of less than 40% free and reduced status. The second quadrant focused on schools with three-year average proficiency rate on the English/language arts portion of the ISTEP+ of 78.7% (state average pass percentage for the 2012-2013 ISTEP+ assessment in English/language arts) or higher and SES of more than 40% free and reduced status (Indiana Deparmtent of Education [IDOE], 2013). The third quadrant focused on schools with three-year average proficiency rate on the English/language arts portion of ISTEP+ of less than 78.7% (state average pass percentage for the 2012-2013 ISTEP + Assessment in English/language arts)

and SES of less than 40% free and reduced lunch status (IDOE, 2013). And the fourth quadrant focused on schools with three-year average proficiency rate on the English/language arts portion of ISTEP+ of less than 78.7% (state average pass percentage for the 2012-2013 ISTEP + Assessment in English/language arts) and SES of more than 40% free and reduced lunch status (IDOE, 2013). Schools were compared with schools with similar SES levels or high-poverty schools were compared to other schools of high-poverty and affluent schools (less than 40% students qualifying for free and reduced lunch) were compared to other affluent schools.

Research Questions

This study was led by four questions:

1. Is there a significant difference on the implementation of research-based fluency strategies based on school performance level while holding SES levels constant?
2. Is there a significant difference on the implementation of research-based comprehension strategies based on school performance level while holding SES levels constant?
3. Is there a significant difference on the implementation of research-based vocabulary development strategies based on school performance level while holding SES levels constant?
4. Do SES level, fluency instruction, comprehension instruction, and vocabulary instruction serve as predictors of language arts performance level?

Significance of the Study

This study contributes to the field of education by examining strategies for literacy instruction in schools that are experiencing success and those that are not experiencing success on the English/language arts portion of the ISTEP+. The study examined fluency,

comprehension, and vocabulary to determine which strategy explained the most variance and was the best predictor for success on the language arts portion of ISTEP+ while holding the SES constant. Schools were compared to schools with similar SES. By doing this, quantitative data supported areas of needed improvement for school effectiveness in literacy instruction in all schools. Quantitative data demonstrated whether there were differences in instruction and implementation of literacy strategies between schools of poverty regarding literacy instruction and proficiency on the state standardized assessment, as well as examined affluent schools regarding their proficiency rate on state assessments and literacy instruction. This study examined the impact teaching and exposure of specific strategies in fluency, comprehension, and vocabulary development has on the overall proficiency rate on the English/language arts portion of ISTEP+. This study provided the strategies that school leadership and instructional staff focused on to improve student literacy skills and state standardized test scores. This study provides an overall evaluation of literacy instruction at the middle school level.

Definition of Terms

Affluent schools, for the purpose of this study, refers to any school with less than 40% of students qualifying for free and reduced lunch status, also referred to as low poverty.

Assessment, for the purpose of this study, is an on-going process of determining student proficiency level and to improve student learning.

Balanced approach is a curricular methodology that integrates various modalities of literacy instruction including, for the purpose of this study, the five components of literacy.

Comprehension is acquiring strategies to understand, remember, and communicate what is read. Children need to be taught comprehension strategies or the steps good readers use to

make sure they understand text. Students who are in control of their own reading comprehension become purposeful, active readers. (Education.com, 2008, para. 5)

Disfluent, for the purpose of this study, refers to the inability to read text with proper fluency or ease.

Fluency is the ability to read a text accurately and quickly. Fluent reading sounds like speaking.

Implementation, for the purpose of this study, refers to the application of strategies in instruction.

Language arts performance, for the purpose of this study, is proficiency (three-year average) on the English/language arts portion of ISTEP+.

Literacy is "the ability to read and write" ("Literacy," 2013 para. 1).

Middle school, for the purpose of this study, is any school in Indiana serving Grade 6 to Grade 9.

School of poverty, for the purpose of this study, refers to any school with 40% or more students qualifying for free and reduced lunch status.

Socioeconomic status (SES), for the purpose of this study, is based on free and reduced lunch status or percent of students qualifying for free and reduced lunch.

Vocabulary development consists of learning the meaning word and how to properly pronounce the words.

Limitations

1. It was possible when reviewing historical data that it was not the same cohort of students from year to year.

2. It was possible when answering survey questions, some participants did not answer the questions honestly.
3. Teachers were reporting frequency of current implementation; the assumption was that because only veteran teachers were surveyed, this had been the common practice for the past three years. It is possible that some instructional practices change from year to year.

Delimitations

1. Only public middle schools in the state of Indiana were invited to participate in this study.
2. The practices that are examined in the study focus on literacy and do not give a comprehensive perspective of the overall classroom instruction.

Organization of the Study

This study is divided into five chapters. Chapter 1 provides the statement of the problem, purpose of the study, research questions, definition of terms, and summary. Chapter 2 presents a review of the literature in relation to literacy beginning with the history of literacy development, literacy as the foundation for all learning, the five components of literature, Indiana Literacy Framework, the achievement gap, literacy across the curriculum, the role leaders play in literacy, high stakes assessment, how testing shapes the curriculum, literacy in the 21st century, and professional development for a balanced literacy approach. Chapter 3 presents information about the methodology used to complete this study including purpose of the study, research design, population and sample, instrumentation, statistical analysis, assumptions of the study, limitations, null hypotheses, and summary. Chapter 4 presents findings as related to the data

collected. Chapter 5 presents a summary of the findings, results, implications, and recommendations for further research.

Summary

Due to findings of a deficit in literacy achievement in secondary education, there is clearly a need for continued literacy instruction at the middle school level. Literacy instruction should not halt early but rather be a vital component of student's educational experience from Kindergarten to graduation (NASSP, 2005). It would seem a potential failure to students to stop providing explicit math instruction after the intermediate grades, yet schools across the United States fail to provide literacy instruction beyond fifth grade.

CHAPTER 2

REVIEW OF LITERATURE

The History of Literacy

The earliest examples of literacy development date back to 3500 B.C. in the form of pictorial written communication. In the centuries following the invention of written communication, only a small portion of human society learned to read and write. Those who learned to read often held public readings, much like modern theatrical performances. The first books are known to have originated in Rome, toward the end of the Roman Republic, approximately 23 B.C. ("History of Literacy," 2013, para. 1)

Books were rare and expensive due to the high cost and slow, tedious production of paper.

"Religious sects, such as the Puritans, placed significant emphasis on private reading for religious enlightenment. Colonial governments made literacy a prerequisite for civil rights" ("History of Literacy," 2013, para. 3). Literacy at the time was defined as the ability to sign ones name ("History of Literacy," 2013). Through the Civil War, literacy was not determined by how much one could read but rather penmanship with a focus on letter writing and calligraphy. Reading for simple pleasure became a prevalent activity to pass time during and following the Industrial Revolution. This became possible when paper production in mills significantly reduced the price of books making them more available and affordable to all ("History of

Literacy," 2013). Then, until World War I, literate people were known as those who could memorize poems, speeches, soliloquies thus gaining the label of recitation literacy. "During the 1920s, recreational reading levels reached 70% in some parts of the United States" ("History of Literacy," 2013, para. 3). After the 1920s education became more common to all and literacy became the primary goal in early American public education. Suddenly everyone wanted to focus on the importance of becoming literate.

> In 1982, the National Education Association (NEA) estimated that 95 million Americans were reading literature for pleasure at some point in the span of a year. From 1982 through 2002, the percentage of persons reading literature fell by 10 percent. ("History of Literacy," 2013, para. 7)

It was assumed that the sudden popularity in television watching caused the decline in reading for pleasure ("History of Literacy," 2013).

> NEA researchers determined that television and cinema were not significant factors in the decline. NEA researchers say that the statistics cannot explain the cause of the decline of reading, but many place blame of the schools for failing to inspire the youth to make reading part of their daily routine and entertainment. ("History of Literacy," 2013, para. 3).

The sudden decline in leisurely reading caused urgency to research the components of literacy and their complexity (as cited in Wendt, 2013). Suddenly the term literacy no longer refers to the ability to read, but rather takes on an important role of future success for students in classrooms across the world (Wendt, 2013). The five Ferrandino and Tirozzi (2013) stated much attention in the 21st century focuses on the nation's competitiveness in the New World marketplace. "Countries including China and India threaten to overshadow the United States in

the area of literacy" (Ferrandino & Tirozzi, 2013, p. 1). Recently, the National Association of Elementary School Principals (NAESP) and NASSP "created a list of priorities they believe are necessary to support a comprehensive pre K-12 literacy agenda" (Ferrandino & Tirozzi, 2013, p. 1). Under Reading First (Title I, Part B, Subpart 1), district and school reading programs for elementary age students Kindergarten to Grade 6 must include instruction, curriculum, and assessment on the five components of literacy which include phonics, phonemic awareness, vocabulary, fluency, and comprehension (as cited in Wendt, 2013).

Ferrandino and Tirozzi (2013) discovered that over the past 10 years, billions of dollars have been set aside to develop strong literacy in the early grades but very little funding has been provided for the secondary level. Although students in Grade 4 according to NAEP, scored among the best in the world, those in Grade 8 scored much lower. NAEP also reported that by Grade 10, U.S. students will be among the lowest in the world (Ferrandino & Tirozzi, 2013).

With this research came the realization that the future dropouts can be identified early as middle school based on their proficiency in literacy. Fleming (2012) reported research findings from the NAEP suggesting that school failure will ultimately cost the economy a great amount of money in the future. When students fail to graduate from high school, our nation loses billions of dollars (Lu & Ward, 2005). According to Lu and Ward (2005),

- Annual losses exceed $50 billion in federal and state income taxes for all 23,000,000 U.S. high school dropouts ages 18-67.
- America loses $192 billion—1.6% of GDP—in combined income and tax revenue losses with each cohort of 18-year-olds who never complete high school. Health-related losses for the estimated 600,000 high school dropouts in 2004 totaled at least $58 billion, or nearly $100,000 per student.

- High school dropouts have a life expectancy that is 9.2 years shorter than high school graduates.
- America could save between $7.9 billion and $10.8 billion annually by improving educational attainment among all recipients of TANF (Temporary Assistance for Needy Families), food stamps and housing assistance.
- Increasing the high school completion rate by just 1 percent for all men ages 20-60 would save the United States up to $1.4 billion per year in reduced costs from crime. (para. 2)

The federal government has made many investments in early childhood literacy development; however, funding for programs at the secondary level is often an afterthought. Ferrandino and Tirozzi (2013) stated data reveals that from the elementary school years to middle school the proficiency rate for English and language arts tends to decrease. Furthermore, students in middle school need more support with reading and comprehending proficiently in order to explore science, technology, engineering, and mathematics (STEM) (Ferrandino & Tirozzi, 2013). In order to survive and thrive in the 21st Century, people must possess high level literacy skills. Continual instruction beyond the early grades is needed (Ferrandino & Tirozzi, 2013). This begins with an agenda, funding, and support.

Literacy, The Foundation for all Learning

Clay (1991) asserted that literacy begins in infancy. Young children are exposed to text in many forms (Clay, 1991). Family plays a critical role in the development of literacy skills. Children often learn oral skills by observing their parents and other family members while they speak (Clay, 1991). This oral language contributes greatly to a student's emergent literacy skills throughout their life. Emergent literacy skills can be exhibited in a child who draws on a piece

of paper with a crayon and then tells the audience what the picture portrays.

Clay (1991) claimed that emergent literacy is "the period between birth and the time when children read and write conventionally" (p. 34). Clay believed that emergent literacy begins and is expressed at the early age of 1 or 2. Additionally, Clay described reading as a "message-getting, problem-solving activity" (p. 34) that improves with time and repetition. Literacy learning can be divided into the acquisition of literacy skills and the application of the skills to other areas of learning (Clay, 1991). Children often witness and emulate the adult or family member, resulting in learning. The teacher's role is to help the child connect what they observe and exhibit with the language skills and the new challenges they will encounter in school and how to marry the two (Clay, 1991).

Preschool age children are exploring the detail of print in their environment (Clay, 1991). They observe signs, cereal boxes, educational video games, and television shows. Many children's shows focus on literacy such as Dora the Explorer, Sesame Street, Word World, Super Why, and Sid the Science Kid and build a basis for literacy. They develop concepts about books, newspapers, and magazines by observing their parents. They begin to form primitive hypothesis about letters, words or messages in books, or in handwritten messages (Clay, 1991).

Literacy development continues as the child enters kindergarten and is expected to master a multitude of Common Core State Standards in literacy. Clay (1991) stated that each child enters school with a unique set of skills in literacy. Furthermore, some are more advanced than others based on their experiences (Clay, 1991). They express themselves in very individual ways and it is the job of the teacher to meet each student at that level (Clay, 1991). They are introduced to the concept of print, begin selecting books of their penchant, and eventually begin to problem solve and make inferences based on what they have read (Clay, 1991). This

development is continual as the text becomes progressively more difficult through the years. Educators must continue to allow students time to participate in actual reading from a variety of texts (Sanacore & Palumbo, 2010).

Children need to grow as literacy learners. They must develop the skills and strategies necessary for becoming proficient readers. They must develop independence and sustained control over a variety of reading and written tasks (Mahurt, Metcalfe, & Gwyther, 2007). As they transition from early elementary to intermediate, they must strengthen their control over early reading behaviors such as maintain reading for long periods of time, develop a complex understanding of texts read, problem solve using a variety of sources, read a wide variety of genres, read fluently in meaningful phrases with attention to punctuation, and write simple responses to texts. Mahurt et al. (2007) stated that students begin to write longer stories, use more complex sentence structure, revise and edit, pre-plan, and form a sense of audience as they progress in skills and confidence. Word study goes beyond basic knowledge of blends but now students understand structural analysis of words using root and base words. They have high frequency words under control and use visual analysis and understanding of word structure to refine and extend vocabulary (Mahurt et al., 2007).

Literacy instruction falls flat after the intermediate school years. Suddenly students are expected to read much more difficult text, on their own time, and respond to what they have read with little to no assistance. Allington and Gabriel (2012) shared the six elements of instruction that every child should experience on a daily basis. The first element is self-selected reading. Children should be encouraged and allowed to select a book that is of interest to them. "Research shows that students will spend more focused time reading a book if they have had the opportunity to choose what they read" (Allington & Gabriel, 2012, p. 10). "In a 2004 meta-

analysis, Guthrie and Humenick found that the two most powerful instructional design factors for improving reading motivation and comprehension were (1) student access to many books and (2) personal choice of what to read" (as cited in Allington & Gabriel, 2012, p. 10). The thought that the needs of all children in a classroom could be met with a single textbook or workbook is absurd. Skill and drill and worksheet based learning does not benefit all learners (Allington & Gabriel, 2012).

The second element mentioned by Allington and Gabriel (2012) is accuracy. It is vital that students choose texts that they can read accurately and understand. Research shows that students must read with 98% accuracy or higher in order to be considered proficient and to improve literacy skills (Allington & Gabriel, 2012). Research shows that any score below 90% accuracy doesn't improve reading ability and does not show proficiency. Simply increasing the amount of time children spend reading is not sufficient either, especially if the child is reading with little to no accuracy. "When students read accurately, they solidify their word-recognition, decoding, and word analysis skills" (Allington & Gabriel, 2012, p. 12). Students who struggle are much less likely to comprehend the text and are more likely to become frustrated. The frustration often leads to loss of interest in the reading task. Compared to the child who reads with success for 15 minutes, the child who struggles through the 15 minutes will not yield similar results and will be turned off to reading (Allington & Gabriel, 2012, p. 12). This is why traditional instructional practices widen the gap.

Allington and Gabriel (2012) listed comprehension as the third element of instruction. "Every child must read something he or she understands" ((Allington & Gabriel, 2012, p. 12) Often students receive interventions that focus on basic skills in isolation. Neurological research can often explain how students are wired differently and emphasize the idea that these students

may need large amounts of isolated instruction (Zambo as cited in Allington & Gabriel, 2012). This same research shows that providing remediation with strategies in comprehension can change the structure of the struggling students' brains (Allington & Gabriel, 2012). In 2009, Keller and Just examined images of the brains of struggling readers. The images were taken before and after 100 hours of remediation were provided. They found the white matter of the struggling reader to be lower in structural quality before the intervention. After the intervention, the quality improved. The changes in the white matter were consistent with predicting increases in reading ability (Keller & Just, 2009). Basically, their finding show that neurosurgery is not a requirement to increase reading ability, but instead a lot of reading and rereading of text that students find appealing and understandable to develop the ability to read. These findings support what studies have shown of reading interventions. "Regardless of their focus, population, or publisher, interventions that accelerate reading development routinely devote at least two-thirds of their time to reading and rereading rather than isolated or contrived skill practice" (Allington & Gabriel, 2012 p. 13).

The fourth element described in the article, *Every Child, Every Day*, is writing (Allington & Gabriel, 2012). Allington and Gabriel (2012) stressed the importance of writing something personally meaningful every day. This type of writing does not consist of only fill in the blank, it allows for deep thinking. This should be writing that is special to the child and a way to express feelings and thoughts. The best part of the writing piece is that it is understandable to the student and they can read, reread, and analyze it (Allington & Gabriel, 2012).

The fifth element involves sharing. Research reveals that conversation with peers improves student comprehension of text and their level of engagement with the task at hand (Allington & Gabriel, 2012). This is not the simple recall or retelling of a story, but instead an

analysis of what they have read in comparison to their peers. Just 10 minutes a day of literate conversations "improved standardized test scores, regardless of social economic status (SES), family background, or reading level" (Allington & Gabriel, 2012, p. 14). These same studies showed that struggling readers, who were asked to engage in conversation about what they had read with peers, rather than extra basic skill practice such as literal questions about what they had read, made greater gains (Allington & Gabriel, 2012). This is perhaps one of the easiest, underused elements to instruction. This type of practice is also advantageous to English language learners.

Listening is the final element listed by Allington and Gabriel (2012). Teachers should model fluency by reading to the class, this modeling of reading increases a student's fluency, comprehension, vocabulary, sense of story, text structure, and background knowledge (as cited in Allington & Gabriel, 2012). Teachers should read every day to their students, even if only for a few minutes. Few teachers above the first grade read aloud to their students every day (Allington & Gabriel, 2012). This type of instruction does not require planning or special training; it simply calls for the teacher to allow for a few minutes a day of reading to the students and selecting from a variety of genres and levels. These six elements mirror the five components of literacy that the state of Indiana has chosen to focus on as part of their literacy framework.

Five Components of Literacy

Scientific research shows that there are five essential components of reading that are vital pieces of instruction in order for children to learn to read (Education.com, 2008). The five components that must be included in the 90-minute reading block include; (a) phonemic awareness, (b) phonics, (c) vocabulary development, (d) comprehension, and (e) fluency (G. M. Jones, Jones, & Hargrove, 2003). Each component becomes increasingly more difficult as the

child moves through the grades. Currently, the push to include these five components remains solid in grades Kindergarten through Grade 5 (Education.com, 2008). Some elementary schools housing Grade 6 also include the five components in their classroom instruction. Each component is described below:

1. "Phonemic awareness is the ability to recognize and use individual sounds to create words" (Education.com, 2008, para. 2). It is important to teach children that individual sounds put together make words.
2. "Phonics is the ability to understand the relationships between written letters and spoken sounds" (Education.com, 2008. para. 2). Children are taught relationship between letters and sounds.
3. "Fluency is the ability to read a text accurately and quickly" (Education.com, 2008, para. 2). Reading fluently gives children a better chance of comprehending what has been read.
4. "Vocabulary development consists of learning the meaning and pronunciation of words" (Education.com, 2008, para. 2). Children will learn the meaning of written and spoken words in order to use them in conversation and writing.
5. "Comprehension is acquiring strategies to understand, remember and communicate what is read" (Education.com, 2008, para. 2).

Explicit instruction of three of these five components should continue across the curriculum throughout middle and high school but at more complex levels (Education.com, 2008). For this reason, Indiana has adopted a literacy framework for elementary and secondary students (G. M. Jones et al., 2003). For the purpose of this study, extensive research in fluency, vocabulary development, and comprehension will be shared.

Fluency

Fountas and Pinnell (2009) cited disfluency as one of the most salient characteristics of a struggling reader. Without fluency, comprehension and vocabulary development are nearly nonexistent (Fountas & Pinnell, 2009). Fountas and Pinnell stated that many readers who struggle with fluency do so because they are assigned to read texts that are far too difficult and have habits ingrained in them of reading slowly and without expression. The job of teachers is to help the reader sound good and this can only be done through explicit teaching. Table 1 lists characteristics of nonfluent and fluent readers (Fountas & Pinnell, 2009).

Table 1

Characteristics of Nonfluent and Fluent Readers

Nonfluent Readers-Observable Behaviors	Fluent Readers- Observable Behaviors
• Fails to reflect punctuation with variation in the voice. • Pauses randomly, not reflecting logical phrase units. • Reads choppy or word-by-word. • Uses few rising and falling tones or monotonously applies rising and falling tones to produce "droning." • Reads slowly. • Uses little to no expression. • Reads slowly or stops in an attempt to pick up and remember all the details. • Reads in a way that does not reflect awareness of language system.	• Reflects punctuation with variation in the voice-pausing intonation, pitch, stress. • Pauses appropriately to reflect meaningful phrase units in response to punctuation. • Groups words into phrases that reflect meaning. • Uses rising and falling tones in a way that is related to text meaning and punctuation. • Places stress on words in a way that reflects meaning. • Uses expression to reflect the interpretation of the meaning of text. • Varies speed, slowing down and speeding up for various purposes. • Focuses on meaning, does not get bogged down in details.
Underlying strategic actions • Processes visual information slowly with many attempts at words and many overt self-corrections.	Underlying strategic actions • Processes visual information rapidly and efficiently. • Understands how pauses, pitch, and

• Has an inefficient word-solving strategy, tend to sound out words using the smallest units. • Reads as if not aware of oral language, with errors that do not indicate knowledge of structure. • Tends to ignore punctuation as a tool for constructing meaning. • Does not differentiate dialogue from other text. • Tends to stop often or to read very slowly even when accurate. • Reads slowly or stops in an attempt to pick up and remember all the details. • Misses much of the meaning and has to slow down to consider meaning.	stress communicate the authors intended meaning. • Recognizes features of known words and uses these features to get to words that are unknown. • Reads word groups instead of single words. • Easily, solves problems "on the run" slowing down but speeding up again in a smooth process. • Doesn't get bogged down in details. • Rapidly accesses meaning. • Uses prior knowledge and understanding the world to anticipate what will happen in the story.

Note. Adapted from Fountas & Pinnell (2009)

The achievement of fluency is often dependent on the type of text the reader is trying to process (Fountas & Pinnell, 2009). Teachers must provide a variety of leveled texts in their classroom library, even at the secondary level. During the middle school years, teachers in all content areas can support readers in fluency (Fountas & Pinnell, 2009). Supporting pausing, phrasing, word stress, and intonation is a prevailing way to teach students to read fluently (Fountas & Pinnell, 2009). Middle school teachers can do this by conferencing with students to listen to their fluency and then modeling with read alouds and shared reading. They can also give students books that are accessible so that students have potential for fluent reading (Fountas & Pinnell, 2009). Teachers should allow students to read texts that they have demonstrated that they can read with high accuracy, prompt for aspects of fluency and model what it sounds like, select small group text that is engaging and holds student interest, partake in readers theater to practice expression, and last but not least, be encouraging (Fountas & Pinnell, 2009).

The NAEP conducted a large study of the status of fluency achievement in American education (National Institute of Child Health and Human Development, 2000). The study found

that 44% of fourth graders in a nationally representative sample were disfluent with grade-level stories. The study also revealed a close relationship between fluency and comprehension (National Institute of Child Health and Human Development, 2000). Students who did not demonstrate fluency had difficulty with comprehension (National Institute of Child Health and Human Development, 2000). The panel of literacy specialists stated a strong belief in the effectiveness of ongoing explicit instruction in fluency. They named three instructional approaches as key to fostering successful fluency development: guided repeated oral reading, meta-analysis of guided oral reading, and encouraging students to read on their own from a variety of texts (National Institute of Child Health and Human Development, 2000). The National Institute of Child Health and Human Development (2000) stated that because

> the ability to obtain meaning from print depends so strongly on the development of word recognition accuracy and reading fluency, both should be regularly assessed in the classroom, permitting timely and effective instructional response when difficulty or delay is apparent. (p. 16)

Comprehension

Decoding and sounding out words is just one small part of the reading puzzle but if children do not comprehend what they have read they may never fully gain a true love of literacy (National Institute of Child Health and Human Development, 2000). Comprehension has often been viewed as the "essence of reading." It is essential to not only the academic learning but to lifelong learning as well (National Institute of Child Health and Human Development, 2000). Without comprehension skills students in middle school will have a difficult time understanding difficult text. Zimmerman (2003) listed the following seven keys to unlocking meaning:

1. Create mental images: Good readers tap into their prior knowledge and experiences

and create a picture in their mind. The images will help build the story.

2. Use background knowledge: Readers will utilize what they already know to help make connections to what is being read.
3. Ask questions: Good readers will formulate questions in their mind before and during reading.
4. Make inferences: Good readers will make predictions and draw conclusions.
5. Determine the most important ideas or themes: Good readers will sift through the information and determine the main idea and supporting details. They will determine which information has the biggest impact on the story.
6. Synthesize information: Good readers will track their understanding.
7. Use "fix-up" strategies: Good readers know when to look back in the story for understanding. (p. 23)

Zimmerman (2003) claimed that comprehension has to do with thinking, learning, and expanding a reader's knowledge base and building on past knowledge. It also includes understanding and digesting new information, and making connections to things never yet experienced (Zimmerman, 2003). Research in reading comprehension took a different route nearly 30 years ago when researchers acknowledged and thoroughly investigated the reading strategies that proficient readers used to understand what they read (Zimmerman, 2003). Harvey and Goudvis (2000) found that proficient readers

- Make connections between their prior knowledge and the new information they learn in the texts they read;
- Constantly ask questions about what they are reading;
- Make inferences while reading, and determine the main idea;

- Are skillful at creating information within and across texts and reading experiences;
- Recognize lack of comprehension; and
- Keep track of the accuracy of their understanding. (p. 34)

The question remains, how and why should teachers teach these strategies? Donald Graves, writing researcher and professor at the University of New Hampshire, believed that teachers must be learners in the classroom alongside the student, spending a significant amount of time modeling their own learning and allowing students to understand that they are learners too (as cited in Harvey & Goudvis, 2000). According to Harvey and Goudvis (2000), teachers must begin with a gradual release of responsibility in order to teach comprehension. This gradual release of responsibility includes modeling, explanation of the strategy, and a demonstration of how to apply the strategy. Often times it is beneficial for the teacher to explain the strategy aloud (Harvey & Goudvis, 2000).

The next step in the release of responsibility involves student practice with teacher guidance or modeling and then eventually the student and teacher will practice together (Harvey & Goudvis, 2000). The teacher scaffolds the students' attempts and provides valuable feedback to support the students thinking (Harvey & Goudvis, 2000). Group and partner sharing will assist in the support of discussion and the thinking process. Next students will practice independently (Harvey & Goudvis, 2000). After working with the teacher and other students, the students are ready to apply the strategy on their own. Regular feedback should be provided to the students. The final step in the gradual release includes applying a strategy in more difficult text (Harvey & Goudvis, 2000).

It is important for teachers to consider their own reading (Harvey & Goudvis, 2000). Think about the materials that adults read over a period of a month, newspapers, educational

articles, magazines, menus, letters, manuals, cookbooks, brochures, newsletters, terms and conditions or legal contracts. Most of the items read are short text. With this in mind, Harvey and Goudvis (2000) stressed the importance of choosing short text for comprehension instruction. Short text is easily read out loud and gives everyone a common literacy experience. If chosen carefully, it is filled with vivid language and pictures. It is authentic and prepares students for material they may be required to read outside of school. Short texts can serve as excellent material for mini-lessons (Harvey & Goudvis, 2000).

Picture books are an excellent resource for building background knowledge and teaching students about content. Picture books are a good starting point because they often have one focus instead of a complicated mix (Harvey & Goudvis, 2000). Teachers must also help students select books to read. This is part of scaffolding the book selection. This is still important in adolescents, especially for students who have not yet discovered a genre they enjoy (Harvey & Goudvis, 2000). Teachers can assist students with this by instructing students to read the back of the book, read the first page, flip through the pages, and look for pictures, inquire about a series, and examining length and determining if the reading level is appropriate (Harvey & Goudvis, 2000).

Other key strategies to comprehension listed in the book, *Strategies That Work*, include making connections, questioning, visualizing, inferring, determining importance, and synthesizing (Harvey & Goudvis, 2000). Making connections can be accomplished by building background knowledge to teach specific content. Finding text to text connections, such as themes in books or connecting big ideas, allowing students to think aloud and finding connections between their own lives and the characters in the story have been shown to increase comprehension (Harvey & Goudvis, 2000). Questioning is vital in the instruction of

comprehension. Teachers can model questioning by reading a short text and then sharing questions that they may have regarding the piece (Harvey & Goudvis, 2000). Additionally, Harvey and Goudvis (2000) claimed that teachers should also assist students with understanding the difference between larger global questions and smaller clarification questions in content area.

Visualizing can be accomplished through picture books (Tovani, 2000). Exploring the senses to comprehend text allows the reader to connect to the characters or the content of the reading. Visualizing merges prior experience and the text to create a visual image in the mind of the student making the reading material more memorable (Tovani, 2000). Inferring is also an important piece to comprehension. Inferring and questioning help to build understanding (Tovani, 2000). This allows the reader to differentiate between the plot and theme. Perhaps the most important is assisting the student with determining purpose (Tovani, 2000). Determining purpose allows the reader to locate all important information, rather than just the main idea. The reader is able to locate key topics and supporting details (Tovani, 2000). Synthesizing allows the reader to respond personally and attempt to answer difficult questions. Synthesizing can be as simple as writing notes in the margin of the book (Tovani, 2000).

Although middle school teachers may assume they do not have ample amount of time to teach literacy skills, Tovani (2000) listed the following benefits of strategy instruction:

1. The entire class can work on the same strategy modeled by the teacher. More capable readers use more sophisticated text, while less able readers use simpler text. If teachers focus on what good readers do, the entire class can improve their reading. It is not too late for struggling middle school students to be taught how to better comprehend what they read.
2. Strategies are applicable across the curriculum.

3. Teachers do not have to be reading specialists to teach comprehension strategies. They simply have to be aware of their own processes as readers. They can notice their own thinking as they read, determine what they do to make meaning, and pass these techniques n to their students. (p. 46)

Vocabulary Development

Vocabulary is important in learning to read and can be critical to the comprehension process of an accomplished reader (National Institute of Child Health and Human Development, 2000a). Too often, vocabulary instruction or assignments in the middle school classroom consists of defining vocabulary words in the text by writing out the definition (National Institute of Child Health and Human Development, 2000a). This activity does not require students to scaffold understanding of the content in any manner; instead it focuses on minimal recall. Although it takes up class time and exposes students to words, it does not necessarily deepen their knowledge (National Institute of Child Health and Human Development, 2000a). There is a powerful relationship between vocabulary and reading proficiency. The relationship has shown predictors of reading and comprehension success as early as kindergarten (National Institute of Child Health and Human Development, 2000a). Research shows that missing just 5% of the words in a text makes it nearly incomprehensible (Fisher & Frey, 2008). Vocabulary studies in the 1940s and 1950s were focused on recall, often through quizzes (Fisher & Frey, 2008). Researchers began to take notice of the limitations of this method. This method did not allow students to reflect on ways in which the vocabulary was authentically used (Fisher & Frey, 2008). Knowledge of vocabulary assessment has now been refined to cover five dimensions: (a) generalization, (b) application, (c) recall of words, (d) proficiency in understanding examples and non-examples, and (e) obtainability through use of vocabulary in discussion (Fisher & Frey,

2008).

In an effort to increase vocabulary instruction in the middle school, Fisher and Frey (2008) explored five big ideas:

1. Make it intentional. Select words that are worth teaching. "Teachers must carefully consider the types of words students need to know and learn" (Fisher & Frey, 2008, p. 19). Middle school students need to understand words specific to curriculum as well as technical words.
2. Make it transparent with modeling. "When teachers read aloud and share their thinking about the words in the text they develop their students' metacognitive skills" (Fisher & Frey, 2008, p. 19)
3. Make it usable. Students must have an opportunity to use the words they have learned.
4. Make it personal. Students will take ownership of the words if they can use the words in their own conversations.
5. Make it a priority. "Students must be engaged in authentic reading tasks, with texts they can read, on a daily basis" (Fisher & Frey, 2008, p. 19)

Without question, vocabulary development and knowledge is vital in the achievement of middle school students. The enormous vocabulary demand makes it nearly impossible to provide instruction on each and every unfamiliar word, but providing a student with a set of skills for clarifying meaning will help them become better at comprehending text (Fisher & Frey, 2008).

Indiana Literacy Framework

Indiana has adopted a framework for birth to age five, Kindergarten to Grade 5, and

Grades 6-12. According to the Indiana 6-12 Literacy Framework, created by the Indiana Department of Education, the goal of literacy instruction is to teach all students to read, write, speak, and use language proficiently across all content areas (D. Jones, 2013). The framework focuses on the importance of goal setting as a powerful tool for corporations, schools, teachers, and students to meet state standards. The goals have been established with and aligned to the Common Core State Standards in English and language arts (D. Jones, 2013)

The Indiana Department of Education discusses the importance of creating a plan and following the plan to reach the goals necessary to prepare students for college and career (D. Jones, 2013) There is emphasis on the importance of incorporating articles, trade books, blogs, graphs, videos, websites, podcasts, social media, and images into literacy instruction because students must be able to learn from and solve problems with these items to best prepare students for a career in the 21st century (D. Jones, 2013). Students should receive strategic, focused literacy instruction throughout the day, teams of teachers should work together to help students make cross-curricular connections, and all stakeholders should receive consistent messages about the importance of literacy to student and learning success (D. Jones, 2013). The state literacy goals for Indiana's students are as follows:

- Overall Literacy Goals – Students will reach benchmarks throughout the school year and reach proficiency by making at least one year's worth of progress each year.
- Reading – Students will identify main ideas and supporting details from broad range of high quality literary and informational text.
- Writing – Students will write to communicate clearly to an audience by writing and answering to a specific prompt. They will respond to various text types.
- Speaking and Listening – Students will contribute to conversation, learn through

collaboration, and present their ideas to others

- Language – Students will properly use conventions of writing and speaking, as well as acquire and understand new words through reading, listening, and media use. (D. Jones, 2013, p. 76)

The Literacy Gap

The National Center for Educational Statistics (NCES) reported that there has been a continuous achievement gap between certain demographic and ethnic groups on the NAEP reading assessment (NASSP, 2005). Among those performing below the basic level on the NAEP, 50% are Black, Hispanic, and American Indian. Less than 10% are White (NASSP, 2005). These discrepancies are true for students who fall in the SES category of free and reduced price lunch. The good news is that the long term NAEP data from 2004 show high gains for fourth-grade students, the highest in 33 years (Carnegie Corporation, 2009). These results also show a narrowing of racial achievement gaps. Black and Hispanic groups in Grade 4 demonstrated the largest gains. The rise in achievement continued with the 2008 NAEP results (Carnegie Corporation, 2009).

Much of the historical research focused on students exhibiting learning disabilities in the early grades. Much emphasis was on the need for early identification and intervention (Wexler, Vaughn, Roberts, & Denton, 2010). Even with the intervention strategies, studies have shown that students with disabilities continue to remain below the threshold of basic literacy skills (Wexler et al., 2010). Although many initiatives to improve reading and literacy were discussed, the 2011 Nation's Report Card for Reading reported that there were not significant gains in proficiency in reading scores from 2009 to 2011 for students with disabilities in Grades 4 and 8 (U.S. Department of Education [USDOE], 2011). In 2007, NAEP reported that student with

disabilities were still scoring below basic levels. In fact, 64% of fourth-grade students with disabilities in public schools scored below a basic level. Basic level implies that the student is reading with partial proficiency (USDOE, 2007). This percentage is compared to the 31% of students without disabilities. The No Child Left Behind (NCLB) legislation requires all students to achieve basic mastery, thus, these findings can be daunting (USDOE, 2007).

Statements released at an Alliance for Excellent Education High School Summit are as follows:

- Currently, nearly 6 million students in Grades 6-12 are at risk of not graduating from high school or do not have the skills necessary to be successful in college or a career.
- 30% of U.S. students are dropping out of high school or not graduating with their cohort.
- African-American and Hispanic students are at a 51% higher risk of not graduating from high school.
- 75% of freshmen that experienced literacy problems in the 3rd grade still experience literacy difficulties in the ninth grade
- The United States ranks 15th among developed countries with combined literacy scores of 15 year old students.
- Among 12th grade students, only 42 percent of Whites, 16 percent of African Americans, and 22 percent of Hispanics scored at or above a proficient literacy level.
- Approximately 25 percent of all high school students read below basic levels or three to four years below basic levels.
- The graduation rates in urban schools are approximately 50 percent.
- High school dropouts are more likely than high school graduates to be welfare

recipients.

- Approximately 3,000 middle and high school students drop out of school on a daily basis in the US. (NASSP, 2005, p. 12)

The facts are alarming and much of this refers back to adolescent years and lack of proficiency in literacy (Wendt, 2013). Students who are preparing for college and work in the 21st century must develop the ability to read and comprehend difficult texts. They must also have the skills to communicate socially and electronically in effective and meaningful ways (Wendt, 2013). Without these skills, secondary textbooks may be inaccessible for the students. Educators in all content areas must realize the literacy gap among secondary age students (Wendt, 2013). The need for intervention for those not proficient must not be ignored. It is no longer "just" the responsibility of the elementary teacher to teach literacy skills but that of teachers teaching students beyond the elementary years.

Literacy Across the Curriculum

Teachers at all levels feel that many resources exist that are focused on beginning reading and writing that provide an instructional paradigm effective for primary grades, but when it comes to teaching literacy to the upper grades, resources are scarce (Tovani, 2000). Most middle and high school teachers feel that they do not have time or they haven't been exposed to the necessary training that it takes to teach their students how to read. They were not trained to be reading specialists, therefore, teaching reading in a history class could seem daunting but necessary (Tovani, 2000). According to Tovani (2000), text becomes inaccessible when students

1. Do not have the comprehension strategies necessary to unlock meaning struggle to understand difficult text.
2. Do not have sufficient background knowledge and can't make connections. What

they read seems disconnected and unimportant.

3. Do not recognize organizational patterns. Students who do not recognize organizational patterns usually do not know how to find the most important part of the text. They cannot organize their thinking.
4. Lack purpose and fail to relate it to real life. Students feel disconnected to the text and therefore fail to construct meaning. (Tovani, 2000, p. 124)

Most middle and high school teachers expect students to know how to read. They also expect them to read more challenging texts, read large amounts in a shorter amount of time, gain information when reading, and read and understand more difficult material (Tovani, 2000). One common misconception about teaching literacy is that it should be taught in isolation and not integrated into the course content.

Kinberg (2011) suggested three phrases to integrate literacy instruction into the curriculum. These three phases can be implemented in any content area. She began with pre-reading or building and tapping into prior knowledge. The second is during reading or promoting active reading, and the third is post-reading or reflecting on and extending reading. Pre-reading is simply preparing the students to read (Kinberg, 2011). Teachers do this by associating the new content with what the students already know. This can be accomplished by building vocabulary, using prior knowledge, and making predictions or drawing inferences (Kinberg, 2011). Since the time of Piaget, researchers have established that we build schemas, or metal representations of what we learn as a way to organize learning (Kinberg, 2011). Researchers such as Piaget, Vygotsky, Ausubel, and others have shown that students construct meaning as they encounter new information (Kinberg, 2011). This can be accomplished through thinking aloud and self-monitoring, text structures or organizers, and visual representations of

text. The final phase involves summarizing and questioning. The main benefit of summarizing is that it focuses the readers on the major points of a text and helps them eliminate what is less important. Teachers can then use this summarization as an informal assessment (Kinberg, 2011).

Leadership and Literacy

The NASSP (2005) noted in their guide for middle and high school principals that strong leadership is the key to unlocking the door to literacy. This leadership is not only essential from administrators but teachers as well. The principal's role is to determine the success or failure of the current literacy program and they must be involved in the sustainability of the program and all that it has to offer (NASSP, 2005). Participation is key to ensure that teachers view the principal as a role model of a reflective, life-long learner with a strong knowledge base in adolescent literacy (NASSP, 2005).

It is imperative that the principal is visible throughout the school. Regular visits to the classrooms will ensure an emphasis on literacy is occurring (NASSP, 2005). The principal should also participate in grade level meetings and be engaged in planning and evaluating school improvement plans. The leader should consider flexible scheduling to allow teachers to meet in teams, allow for cross curricular lesson planning or unit planning, and encourage opportunities to emphasize literacy throughout content areas. NASSP (2005) listed the nine leadership action steps for the literacy leader; they are as follows:

1. Determine the strength of literacy instruction in the building by developing a survey for staff members. The information gathered will be discussed during grade level and staff meetings.
2. Improve literacy opportunities by developing a literacy leadership team. The members should be diverse and the needs of the students shall be determined through

ongoing data analysis.

3. Collaboration is key to ensuring that staff members discuss literacy and ways to improve literacy instruction. This will give staff members an idea of where students are showing weakness. This should also be a time to celebrate any success stories.
4. Develop a schedule that allows for interventions and time for remediation for students that are at risk of failing. This may mean focusing on basic skills.
5. Collect data and analyze to determine specific areas of deficiencies for whole groups or for individuals. Develop and log a plan of action for each child.
6. Develop a school wide professional development plan with input from all stakeholders.
7. Create a budget specifically for literacy needs such as books, instructional materials, and technology.
8. Develop literacy strategies that work across the curriculum.
9. The leader must make a commitment to strengthening literacy and it must be apparent. (NASSP, 2005, p. 34)

A study released by the Wallace Foundation in 2004 found that school leadership was "second only to teaching among school-related factors in its impact on student learning" (NASSP, 2005, p. 13). The principal must be committed to improving instruction and achievement of all students. They must encourage teachers to allow students more time to read in their daily schedule (NASSP, 2005). Research indicated that students must have time to read in order to increase their skills in comprehension, fluency, and vocabulary (NASSP, 2005).

Effective school administrators cultivate a culture and climate that is allows teachers and staff member to reflect and collaborate (Allington & Gabriel, 2012). Administrators should

ensure that every staff member is familiar with student data and is using data to drive instruction. They must foster a culture of collaboration and develop a program that addresses the literacy needs of ALL students (NASSP, 2005). They must survey staff to determine if all teachers have the knowledge base and expertise to provide solid literacy instruction. Professional development should be provided based on the needs to support a secondary literacy program for all teachers and staff members who feel they need more training (Allington & Gabriel, 2011).

Allington and Gabriel (2011) believed administrators should identify an exemplary teacher. Skill and drill are a thing of the past. Studies show that less effective teachers with students showing lower proficiency rates are utilizing skill and drill while exemplary teachers tend to have students spending more instructional time reading. The students in the less effective teachers' classroom spent a great deal of time responding to or providing written responses to low level, literal questions, or completing before and after reading activities (Allington & Gabriel, 2011). The effective teachers offered more variety of book levels that students could actually read accurately, fluently and understand. Teachers should model fluency, comprehension, and vocabulary development strategies (Allington & Gabriel, 2011). The bottom line is, middle school students need high quality instruction all day long, in every class, and students that struggle benefit from a well-crafted daily intervention class. For struggling students, special intervention programs themselves rarely meet the needs of the students (Beers et al., 2007).

High Stakes Assessment

Assessment is not new for educators and leaders. In fact, it has had a major impact on education for many centuries and has become the current reform of choice in U.S. public schools. It affects all states and countries and is often the primary platform for election to office

(G. M. Jones et al., 2003). The documentation of achievement-tests date back to the mid-1800s. This was a time when the United States attempted to educate masses of people (G. M. Jones et al., 2003). The leaders were originally intended for individual evaluation, but as demographics of the United States began to change and immigrants began to make America their home, the tests became a way to measure whether all children were being exposed to an equitable education. It soon became the thermostat of the *great melting pot* (G. M. Jones et al., 2003). Public education experienced a major growth spurt following the end of World War II. The number of students enrolled in an American high school increased by 50% and the curriculum expectations became much more substantial (G. M. Jones et al., 2003). Schools were seen as places for community pride and support and concern for local schools was at an all-time high.

In 1983, the USDOE released the report, *A Nation at Risk: The Imperative for Educational Reform* (USDOE, 2007). This report was written in response to the assumption that the U.S. schools were responsible for the economic decline. The report stated that

> if an unfriendly power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war. As it stands, we have allowed this to happen to ourselves, we have even squandered the gains in the achievement made in the wake of the Sputnik challenge. Moreover, we have dismantled essential support systems which helped make these gains possible. We have, in effect, been committing an act of unthinking, unilateral educational disarmament. (USDOE, 2007, p. 16)

The report put Americans in a state of panic. Suddenly taxpayers were concerned that their dollars were not being spent to provide a quality education to the youth. Theories began to flow that the system must be more rigorous to compete globally, and that control should be handed

over to the experts. With that control, many suggestions were made (USDOE, 2007). Graduation requirements were strengthened, more rigorous standards were adopted, and more time should be set aside for learning with stricter guidelines on the number of school days and hours attended and spent actively engaged in learning each year. Attention was directed to teacher quality and preparation and highly qualified teachers became a mainstay (G. M. Jones et al., 2003). The report used test scores as the indicator for success and the goal of schooling, thus causing a common thought or belief that a high stakes test was the only valid way to measure the quality of education (G. M. Jones et al., 2003). According to those that were most critical of the educational system at the time argued that the system needed to be reimagined, made more rigorous, and above all brought under the control of experts (Meier, 2000). The experts that the critics referred to were those that understood the economy, not educators or parents. According to G. M. Jones et al. (2003), a commission was formed and the following recommendations were put forth:

1. State and local high school graduation requirements should be more made more challenging. It must be mandatory that all students seeking a diploma are proficient in the five new basics including English, math, science, social studies, and computer science.
2. All educational systems should adopt more rigorous and measureable standards, and higher expectations, for academic performance.
3. More time should be set aside to learning. This could occur in many different ways including but not limited to a longer school day.
4. Attacking highly qualified teachers.
5. Holding political figures accountable for improving the educational system. (p. 45)

By the 1990s these recommendations were put in full swing. The focus had shifted to the state level and most states had some type of mandated statewide assessment in place. Experts were trying to place blame somewhere. Was it poor teacher training? Was it low expectations or not enough rigor? Was there a need for stronger literacy across the curriculum? In 1994, all but seven states were on board with state standardized tests (G. M. Jones et al., 2003). The tests focused on reading, writing, and math. In 2013, two decades later, experts are still pondering on the same questions. Educators still lie in wait with each new election to gain knowledge of the next reform. The reforms come and go with the political agenda of each newly elected official (G. M. Jones et al., 2003).

Assessment has been used to measure student's achievement and school quality. Between 1980 and 1998, the number of states that mandated student-testing increased from 29 to 48 (Carnoy, Elmore, & Siskin, 2003). In 1987, Indiana introduced the Indiana Statewide Testing for Educational Progress Plus, also known as the ISTEP+, and with its release, the purpose of assessment began to take on new meaning. The purpose of ISTEP+ and other statewide testing initiatives across the country is to measure proficiency in different subject areas. Indiana focuses on English/language arts, math, science, and social Studies. With this assessment, Indiana schools are held accountable for the percentage of students that pass the standardized test each school year in Grades 3-8. In high school, students must pass the End of Course Assessment (ECA) to be considered diploma worthy. Most recently, Indiana began assessing students in Grade 3 with the regulation that all students that do not pass the IREAD-3 test be retained and repeat the third grade (good cause exemption does apply for students with Individual Education Plans and English language learners with IEPs). Critiques argue that standardized tests such as these encourage teachers to teach to the test with a small subset of skills that the teacher believes

will increase test performance, rather tapping into higher order thinking skills (Misco, 2008).

The enactment of the *No Child Left Behind Act* in 2002 had a major impact on assessment and its purpose. Its passing was not an isolated attempt to reform education (G. M. Jones et al., 2003). It was a means of accountability for all schools across the United States. The increase in interest in utilizing the proficiency in state standards as a tool for school improvement has been dramatic since the 1980s. President Bush's 2002 enactment of *No Child Left Behind* mandated annual state assessments of students in Grades three through eight in reading and math (G. M. Jones et al., 2003). It also stated that any student attending a school that fails to improve for three consecutive years should be allowed to use federal funds to attend other public or private schools of their choice (G. M. Jones et al., 2003). The shift from state and local government control moved into the hands of the federal government. The NCLB bill defined quality of education in terms of achievement scores, clearly outlining the link between scores and educational value (G. M. Jones et al., 2003).

Standardized tests, such as the ISTEP+, currently focus on state standards. Students are required to show a level of mastery for each skill and standard taught. This provides feedback to teachers and districts as to where their strengths and weaknesses lie with students, teachers, and schools. As we become closer to the ultimate demise of NCLB, legislatures realize that it has been an underwhelming instrument for accountability and ultimately, it was unrealistic from the start. Now, new measures are being considered and implemented all in the name of educational reform (G. M. Jones et al., 2003).

Carnoy et al. (2003) stated that there are four fundamentally different approaches to assessment and accountability: (a) statewide standardization, (b) school or district-wide management, (c) teacher-focused professionalization, and (d) student-driven competition.

Statewide standardization approach basically focuses on changes to the current system (Carnoy et al., 2003). The assumption is that there is nothing wrong with the current structure of state and local governance, but changes need to be made within the current structure to increase effectiveness. These changes can be made through teacher training and output control with standardized testing (Carnoy et al., 2003). Within school or district-wide management, reformers seek to increase accountability through decentralization and school based management reforms. The aim is to increase schools' efficiency and effectiveness, but to do so by increasing the role of local representatives in the traditional state-local school governance structures (Carnoy et al., 2003). Within the teacher-focused approach to accountability, the emphasis is on improved performance and the belief that it can be achieved with professional practice that will increase the expectations and responsibilities of the school level representatives in the state-local governance structure. Finally, the student-driven approach was derived from the disillusionment that students and parents are clients to be managed rather than customers to be served (Carnoy et al., 2003). The idea is to make school systems more responsible for the services they deliver and more responsive to the needs of their customers. Each state is unique in its approach (Carnoy et al., 2003). Testing in America has gone through many stages of change. The early beginnings of assessment focused on the individual achievement. In addition to individual student achievement, assessment now focuses more on a measure of the quality of schools and provides educator and student accountability (Carnoy et al., 2003).

How Testing Shapes the Curriculum

It is impossible to know how testing ultimately affects teaching methodologies. Some studies show that it leads teachers to negative changes, while other studies indicate that assessment has led teachers to increase rigor and help to provide a focus on the content that is

most important (G. M. Jones et al., 2003). Deciding what should be taught each day and what part of the curriculum is most important is not an easy task, especially in a limited amount of time.

What should be taught differs from community-to-community, district-to-district, state-to-state, and country-to-country. The perspectives of what should be taught come from political agendas, religious values, and a wide range of special interest groups (Carnoy et al., 2003). It is true that our students need to know the fundamentals of math, reading, and writing, but the reality is that they must also have the ability to compete in a global economy. The days of focusing on a traditional curriculum are gone, now students must be effective communicators and technologically advanced (Carnoy et al., 2003). For students today, the goal is not about a recall of what they know, but an ability to locate information and use it in ways that make it meaningful (G. M. Jones et al., 2003).

Ultimately, assessment should provide a clear picture of student strengths and weaknesses and educators should use that data to build students skills. Standardized test scores can provide baseline data on individual students, as well as track progress from year to year (NASSP, 2005). Often the standardized tests do not offer specific data needed to provide prescriptive activities to improve student reading and comprehension skills, they simply place rank on the student (Carnoy et al., 2003). Each school will need to establish clear literacy goals, as well as develop a balanced assessment program. The program should offer both formal and informal assessments do determine the success of the programs. As new programs are implemented, formative assessments should be given to determine the impact of the new practices on student learning (G. M. Jones et al., 1999).

Literacy in the 21st Century/Common Core State Standards

The Common Core State Standards (CCSS) for literacy call for cross-disciplinary literacy for all students by the end of high schools (Conley, 2011). Standards for reading, writing, speaking, and listening are integrated into history and social studies, science, and technical subjects. Students will no longer learn literacy skills in isolation, the expectation is that science, social studies, and history teachers will also teach students specific skills within their curriculum (Conley, 2011). Many supporters of the CCSS believe their implementation is necessary for students to become competitive and successful in a global economy (Conley, 2011). Standards are no longer viewed as a single initiative but instead as a shared initiative that spans across all disciplines. All teachers will be held accountable for literacy achievement (Wendt, 2013).

The push with CCSS is for inquiry based learning, critical analysis, and distribution of material in ways that are meaningful, applied to real life, and evidence-driven for all students (Wendt, 2013). They require students to develop and employ key cognitive strategies. The English/language arts standards require students to develop the following cognitively complex skills:

1. Analyze the characters of the text and how they interact.
2. Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively as well as in words.
3. Read complex literary and informational texts proficiently and respond to comprehension questions.
4. Develop and strengthen the writing process, sometimes writing an entirely new approach.
5. Use technology to interact and communicate with others.

6. Investigate and conduct research projects based on focused questions. (Wendt, 2013, p. 97)

Professional Development for all Teachers

Successful professional development connects curriculum with assessment, instruction, and professional development (NASSP, 2005). Professional development has the most impact on teacher performance if teachers can "concentrate on instruction and student outcomes in the specific contexts which they teach" (King and Newman as cited in NASSP, 2005, p. 39). They also suggested that teachers must have time to collaborate with peers to make connections to researchers and program developers. NASSP (2005) considered the following professional development topics:

- Accelerate struggling readers— share techniques that work for struggling readers, offer timely additional assistance if possible.
- Elements of reading—learn about implementation strategies that address the five components of literacy.
- Advanced elements of reading—take a deeper look into the five components of literacy.
- Support for reading coaches—allow time for whole group and one to one coaching. Ensure that all staff members are trained and can contribute or support the effort.
- Strategic reading—learn how to make these processes transparent for all students, encourage students to take ownership of their learning.
- Differentiation and diversity—Develop knowledge, skills and strategies for differentiating instruction to meet the needs of diverse student populations.
- Adolescent engagement and motivation—find what motivates adolescents to read-

self-selected, high interest.

- Vocabulary instruction for adolescents—understanding the importance of vocabulary development and reading comprehension.
- Using multiple texts with adolescents—Explore the use of multiple texts to engage readers and spark interest.
- Content-area literacy instruction—Improve student comprehension in content areas through effective teaching strategies.
- Literacy in science—Integrate research-based instructional strategies into science classrooms to assist comprehension. (NASSP, 2005, pp. 31-38)

CHAPTER 3

METHODOLOGY

Purpose of the Study

The purpose of the quantitative study was to determine if the frequency of implementation of fluency strategies, comprehension strategies, and vocabulary development strategies serve as predictors in middle schools in relation to proficiency on the English/language arts portion of the ISTEP+ assessment and SES. The study examined literacy instruction in middle schools across Indiana. Specifically, the study reviewed the instruction of teachers teaching in the content areas of English/language arts, science, and social studies.

Research Questions

This study was led by four questions that had a significant impact on the overall results.

1. Is there a significant difference on the utilization of research-based fluency strategies based on school performance level while holding SES levels constant?
2. Is there a significant difference on the utilization of research-based comprehension strategies based on school performance level while holding SES levels constant?
3. Is there a significant difference on the utilization of research-based vocabulary development strategies based on school performance level while holding SES levels constant?
4. Does SES level, vocabulary instruction, fluency instruction, and comprehension

instruction serve as predictors of language arts performance level?

Null Hypotheses

The following null hypotheses were generated through the research questions:

$H_0$1a. There is no significant difference on the utilization of research-based fluency strategies based on school performance level while controlling for high SES levels.

$H_0$1b. There is no significant difference on the utilization of research-based fluency strategies based on school performance level while controlling for low SES levels.

$H_0$2a. There is no significant difference on the utilization of research-based comprehension strategies based on school performance level while controlling for high SES levels.

$H_0$2b. There is no significant difference on the utilization of research-based comprehension strategies based on school performance level while controlling for low SES levels.

$H_0$3a. There is no significant difference on the utilization of research-based vocabulary development strategies based on school performance level while controlling for high SES levels.

$H_0$3b. There is no significant difference on the utilization of research-based vocabulary development strategies based on school performance level while controlling for low SES levels.

$H_0$4. SES level, vocabulary instruction, fluency instruction, and comprehension instruction do not serve as predictors of language arts performance level.

Description of the Sample

For this study, data were collected from public middle schools in Indiana serving students in Grades 6-8. The participants included middle school teachers teaching English/language arts, science, and social studies. English/language arts, science, and socials studies were selected

because students are asked to read and comprehend grade-level text in these content areas. This study was limited to teachers because they are the direct source of what actually takes place in the classroom, instead of what is perceived to take place in the classroom. The participants were from diverse ethnicities and age groups. Both men and women participated in this study. The study examined four quadrants as shown in Figure 1. Schools were compared to schools with similar SES.

Data Sources

For this study, historical data from the ISTEP+ (2009-10, 2010-11, 2011-12) as well as SES data were acquired from the Indiana Department of Education. School data from the ISTEP+ English/language arts portion was placed in either the category of exceeding average or below average with a three-year average pass rate of 78.7% or above or below with an average percent pass rate below 78.7%. The achievement data were not based on the same sample of students because the data collected spans over three years. Schools were also sorted by SES either high-poverty or low-poverty. Fluency, comprehension, and vocabulary development strategies were rated based on frequency of implementation over a selected period of time for each strategy ranging from never to 10+.

Data Collection Procedures

A survey (Appendix A) was established using Survey Monkey. No IP addresses were collected. The survey consisted of seven questions related to each area of literacy, fluency, comprehension, and vocabulary development, as well as questions to describe each participant. The participants rated the frequency of implementation of research-based strategies in literacy. The frequency was represented by the amount of implementation over a selected period of time. Each component of literacy had seven questions. Fluency was calculated by averaging the total

responses for Questions 12-18. Comprehension was calculated by averaging the total responses for Questions 19-25. Vocabulary was calculated by averaging the responses of Questions 26-32 were calculated. I developed a distribution list, acquired from the Indiana Department of Education, consisting of all middle school teachers teaching English/language arts, science, social studies, or a combination of the above subjects, in the state of Indiana. Once this list was obtained, an email was sent to the teachers on the list. I sent a letter (Appendix B) attached to the survey link. Questions developed for the survey were created using research in Chapter 2 as well as questions from *Creating a Culture of Literacy: A Guide for Middle and High School Principals* (NASSP, 2005). I created the survey. The validity of the survey was tested by graduate students at Indiana State University. Explicit directions and a description of the survey were included. Participants were also informed that privacy would be upheld. In an effort to increase sample size, if needed, follow up would occur via email. The frequency of implementation of the research-based strategies was rated using an 11-point scale. The scale ranged from *never* to *10+* for each strategy implementation based on frequency over a selected time period.

Method of Analysis

The first, second, and third null hypotheses examined whether there were differences on the utilization of research-based fluency, comprehension, and vocabulary development strategies based on school performance level while holding SES levels constant. These null hypotheses each had one dependent variable and one independent variable with two levels. Each of these first three null hypotheses were tested using two *t* tests, as each SES level had their own *t* test.

In the first null hypothesis, the dependent variable was fluency strategies and the independent variable was performance type. Performance type had two levels. The first level

was high-achieving and the second level was low-achieving. In the second null hypothesis, the dependent variable was comprehension strategies, and the independent variable was performance type. The two levels were high-achieving and low-achieving. In the third null hypothesis, the dependent variable was vocabulary development, and the independent variable was performance type. The levels were the same as the aforementioned. In all three instances, *t* tests were appropriate because there was one dependent variable and one independent variable with two levels. Additionally, one *t* test was run for each sample type.

The fourth null hypothesis was tested with a multiple regression. A multiple regression was appropriate because there was one criterion variable and at least two predictor variables. The multiple regression was run with all respondents in the sample. The test examined whether a significant amount of variance within the achievement percentage score can be explained by the predictor variables. Using stepwise regression, the predictor variable that explained the most variance was entered first. If significant, then the next predictor which explained the most remaining variance was entered. The process continued until adding another predictor variable to the model did not significantly increase the amount of variance explained in the criterion variable. Within this test, the criterion variable was English/language arts performance level. The SES level, fluency instruction, comprehension instruction, and vocabulary development instruction were the predictor variables.

If significant predictor variables were found within the model, then the unstandardized and standardized partial regression coefficients were examined. The unstandardized partial regression coefficient provided the predicted amount of change in the criterion variable when a significant predictor increased by one unit while holding all other variables constant. If there are more than two significant predictors, then the standardized partial regression coefficient can

provide the ability to rank order the significant predictors by putting their overall impact into *z* scores. This was done to put all variables on the same metric. Much of the research found in Chapter 2 of this study indicated the strong possibility of the significant predictor variable being the SES level of the building. One potential problem within this study occurred if too much of the variance in performance level was explained by SES. I wanted to run the multiple regression tests to determine whether any of the literacy variables might serve as an even stronger predictor of performance level. If SES was the only significant predictor variable then follow-up linear regression tests determined whether any of the literacy predictor variables would be significant predictors of performance level on their own. This provided evidence on the potential impact of instructional choices for literacy development on achievement performance level.

CHAPTER 4

ANALYSIS OF DATA

The purpose of this study was to determine if the frequency in which middle school teachers provide explicit instruction or implement strategies in the areas of fluency, reading comprehension, and vocabulary development serves as a predictor of success on the English/language arts portion of the ISTEP+. Whether the teacher holds a reading specialist degree or if a literacy coach was on staff served as factors in the analysis. The study provided insight into the current literacy instruction in middle schools across the state of Indiana. The study focused on teachers with more than one year of teaching experience.

This study used survey methodology from teachers teaching in public and charter middle schools in Indiana. Personal identifiers were removed and data were gathered specifically on the frequency of literacy strategies taught per quarter. The study examined fluency, comprehension, and vocabulary development to determine which strategy explained the most variance on the English/language arts portion of ISTEP+ while holding the SES constant.

Demographics (Whole Group)

A total of 233 teachers participated in the study. Of the participants, 86 were teachers of English or language arts (36.9%), 68 were teachers of science (29.2%), 46 were teachers of social studies (19.7%), and 33 were teachers of a combination of English, language arts, science, and social studies (14.2%). Of those surveyed, 173 (74.2 %) were women, and 60 (25.8%) were

men. The participants were asked to identify their level of degree obtained. Of the 233 respondents, 72 (30.9%) obtained bachelor's degrees, 156 (67.0%) obtained master's degrees, one (0.4%) obtained an education specialist degree, and four (1.7%) obtained doctoral degrees. Participants were asked if they possessed a certificate or degree as a reading specialist. Of those surveyed, 30 (12.9%) responded that they currently possessed a certificate or degree as a reading specialist, and 203 (87.1%) responded that they did not possess a certificate or degree as a reading specialist. The number of years of teaching experience of the respondents ranged from two to 48 (M = 17.19, SD = 10.31).

Participants were asked to identify the number of students in their middle school. A total of eight (3.4%) responded that they had 1-200 students in their school, 25 (10.7%) responded that they had 201-400 students in their school, 78 (33.5%) responded that they had 401-600 students in their school, 63 (27.0%) had 601-800 students in their school, 34 (14.6%) responded that they had 801-1,000 students in their school, and 25 (10.7%) responded that they had 1,001 or more students in their school. Participants were asked if their building had a literacy coach. A total of 79 (33.9%) reported that they had a literacy coach, and 154 (66.1%) reported that they did not have a literacy coach.

Participants were asked, "On average, how many hours a month do you devote to professional development in the areas of literacy?" Of those participants, 40 (17.2%) reported that they never devoted time to professional development in the area of literacy, 161 (69.1%) reported that they devoted 1-4 hours monthly to professional development in the area of literacy, 32 (11.3%) reported that they devoted 5-8 hours a month to professional development in the area of literacy, and six (2.6%) reported that they devoted 10 or more hours a month to professional development in the area of literacy.

Participants were asked, “On average, how many hours a month do you devote to collaboration with colleagues examining student data in the area of literacy?” Of those surveyed, 35 (15.0%) reported that they never devoted hours to collaboration with colleagues examining student data in the area of literacy, 156 (67.0%) reported that they devoted 1-4 hours a month to collaboration with colleagues examining student data in the area of literacy, 31 (13.4%) reported that they devoted 5-9 hours a month to collaboration with colleagues examining student data in the area of literacy, and 11 (4.7%) devoted 10 or more hours a month to collaboration with colleagues examining student data in the area of literacy.

Fluency Instruction (Whole Sample)

Regarding fluency instruction, participants were asked, “On average how many times per quarter do you provide multiple opportunities for each student to read orally?” Of the 233 participants, 18 (7.7%) reported that they never provided opportunities for each student to read orally, 152 (32.7%) respondents reported that they provided 1-4 opportunities per quarter for students to read orally, 40 (17.2%) reported that they provided 5-9 opportunities per quarter for students to read orally, and 99 (42.5%) reported that they provided 10 or more opportunities per quarter for students to read orally.

Next, participants were asked the following question regarding fluency: “On average how many times per quarter do you model fluency through read alouds?” A total of 15 (6.4%) reported that they never modeled fluency through read alouds, 48 (20.7%) reported that they modeled fluency through read alouds 1-4 times per quarter, 76 (32.7%) reported that they modeled fluency through read alouds 5-9 times per quarter, and 94 (40.3%) reported that they modeled fluency through read alouds 10 or more times per quarter. Additionally, participants were asked the following question: “On average how often per quarter do you emphasize

appropriate speed, accuracy and expression?" Of the participants, 43 (18.5%) reported that they never emphasized appropriate speed, accuracy, and expression, 79 (33.9%) reported that they emphasized appropriate speed, accuracy, and expression 1-4 times per quarter, 64 (27.6%) reported that they emphasized appropriate speed, accuracy, and expression 5-9 times per quarter, and 47 (20.2%) reported that they emphasized appropriate speed, accuracy, and expression 10 or more times per quarter.

Participants were asked, "On average how often per quarter do you meet with small groups of students to evaluate fluency and provide feedback?" Of the 233 participants surveyed, 115 (49.4%) reported that they did not meet with small groups of students to evaluate fluency and provide feedback, 78 (33.5%) reported that they met with small groups of students 1-4 times per quarter, 21 (9.1%) reported that they met with small groups of students 5-9 times per quarter, and 19 (8.2%) reported that they met with small groups of students 10 or more times per quarter to evaluate fluency and provide feedback. Participants were also asked, "On average how often per quarter do you allow students to engage in three or four rereadings of text?" Of those surveyed, 56 (24.0%) responded that they never allowed students to engage in rereadings of text, 95 (40.7%) responded that they allowed students to engage in rereading's of the text 1-4 times, 49 (21.1%) responded that they allowed students to engage in rereading's of the text 5-9 times per quarter, and 33 (14.2%) responded that they allowed students to engage in rereading's of the text 10 or more times per quarter.

Additionally, participants were asked, "How often per quarter do you ensure that texts used in class vary in topic, genre, and organization?" A total of 33 (14.2%) of the respondents never ensured that texts used in class vary in topic, genre, and organization, 71 (30.6%) of the respondents ensured that texts used in class vary in topic, genre, and organization 1-4 times per

quarter, 70 (30.1%) respondents ensured that texts used in class vary in topic, genre, and organization 5-9 times per quarter, and 59 (25.3%) of the respondents ensured that texts used in class vary in topic, genre, and organization 10 or more times per quarter. Furthermore, in regard to fluency instruction, participants were asked, "How often per quarter do you ensure that students are exposed to text on their instructional level?" Of the 233 teachers surveyed, 14 (6.0%) reported that they never ensured that students are exposed to text on their instructional level, 55 (23.6%) teachers reported that they ensured that students are exposed to text on their instructional level 1-4 times per quarter, 74 (27.5%) teachers reported that they ensured that students are exposed to text on their instructional level 5-9 times per quarter, and 100 (42.9%) teachers reported that they ensured that students are exposed to text on their instructional level 10 or more times per quarter. Each of the participants answers were added together to get a composite score based on questions related to fluency. The fluency composite score was calculated by averaging the scores from the seven questions in this section of the survey, M = 6.65, SD = 1.99.

Comprehension Instruction (Whole Sample)

Participants were asked the following question regarding comprehension instruction, "How often per quarter does instruction include major strategies to promote comprehension such as; summarization, student questioning, use of prior knowledge, metacognition/comprehension monitoring, graphic organizers, and visualization?" Of the 233 participants, three (1.3%) reported that they never provided opportunities to promote comprehension, 48 (20.7%) respondents reported that they provided 1-4 opportunities per quarter for students to promote comprehension, 54 (23.2%) reported that they provided 5-9 opportunities per quarter to promote

comprehension, and 128 (54.9%) reported that they provided 10 or more opportunities per quarter to promote comprehension.

Participants were asked the following question regarding comprehension instruction: "How often per quarter do you discuss prior knowledge with students before beginning a lesson?" Of the 233 participants, two (0.9%) reported that they never discussed prior knowledge with students before beginning a lesson, 32 (13.7%) respondents reported that they discussed prior knowledge with students 1-4 times per quarter, 75 (32.1%), and 124 (53.2%) reported that they discussed prior knowledge with students before beginning reading lesson 10 or more times per quarter.

Participants were asked the following question pertaining to comprehension: "How often per quarter do students turn and talk about the text read?" Of the 233 participants, 21 (9.0%) said they never asked students to turn and talk about the text they had read, 68 (29.2%) reported that they asked students to turn and talk 1-4 times per quarter, 80 (34.4%) reported that they asked students to turn and talk 5-9 times per quarter, and 64 (27.5%) reported that they asked students to turn at talk 10 or more times per quarter. Participants of the survey were also asked the following question regarding comprehension: "How often per quarter do you vary the size of instructional groups to discuss books, focus on strategy use, or introduce more challenging texts to students?" Of the 233 participants, 54 (23.2%) reported that they never varied the size of instructional groups to discuss books, focus on strategy use, or introduce more challenging texts to students, 92 (39.5%) reported that they varied the size of instructional groups to increase comprehension 1-4 times per quarter, 68 (29.1%) respondents reported that they varied the size of instructional groups 5-9 times per quarter, and 19 (8.2%) respondents reported that they

varied the size of instructional groups to discuss books, focus on strategy use, or introduced more challenging texts to student 10 or more times per quarter.

Furthermore, participants were asked the following question relating to comprehension: "On average how often do you spend instructional time helping students identify their reading miscues so they can learn to self-correct?" Of the 233 participants, 71 (30.5%) reported that they never spent instructional time helping students identify their reading miscues, 84 (42.4%) reported that they spent instructional time helping students identify their reading miscues 1-4 times per quarter, 42 (17.9%) stated that they spent instructional time helping students identify their reading miscues 5-9 times per quarter, and 21 (9.0%) reported spending instructional time helping students identify their reading miscues so they can learn to self-correct 10 or more times per quarter. Participants were also asked, "On average how often per quarter do you provide time for daily sustained silent reading with texts at your student's independent reading level?" Of the 233 respondents, 42 (18.0%) reported that they never provided time for daily sustained silent reading with texts at the students independent reading level, 65 (28.0%) reported providing time for daily sustained silent reading 1-4 times per quarter, 52 (22.3%) reported providing time for daily sustained silent reading 5-9 times per quarter, and 74 (31.8%) reported providing time for daily sustained silent reading with texts at the students independent reading level 10 or more times per quarter.

Participants were asked the following question pertaining to comprehension: "How often per quarter do you emphasize both memory, the literal recall of information stated by authors, and inferencing or interpretation, going beyond what the author is saying?" Of the 233 participants, 23 (9.9%) reported never emphasizing memory and inferencing beyond what the author was saying, 62 (26.6%) reported putting emphasis on memory and inferencing 1-4 times

per quarter, 73 (31.3%) reported putting emphasis on memory and inferencing 5-9 times per quarter, and 75 (32.2%) of participants reported putting emphasis on both memory, the literal recall of information stated by authors, and inferencing or interpretation, going beyond what the author was saying 10 or more times per quarter. Each of the respondents' answers were added together to get a composite score based on questions related to comprehension. The comprehension composite score was calculated by averaging the scores to the seven questions in this section of the survey ($M = 6.04$, $SD = 2.37$).

Vocabulary Instruction (Whole Group)

A total of 233 respondents were asked seven questions regarding vocabulary instruction per quarter. The first question asked, "How often per quarter does instruction provide clear explanations with examples of word meaning?" Of the 233 respondents surveyed, two (0.9%) never provided clear explanations with examples of word meanings, 47 (20.3%) provided instruction 1-4 times per quarter, 65 (27.9%) provided 5-9 times per quarter, and 119 (51.1%) provided clear explanations with examples of word meanings 10 or more times per quarter. Participants were also asked, "How often per quarter does instruction encourage use of student's personal examples of word meanings?" Of those surveyed, 12 (5.2%) never encouraged use of students personal examples of word meanings, 63 (27.1%) provided instruction 1-4 times per quarter that encouraged use of student's personal examples of word meanings, 82 (35.2%) provided instruction 5-9 times per quarter, and 76 (32.6%) provided instruction 10 or more times per quarter that encouraged use of student's personal examples of word meanings.

Regarding vocabulary, participants were asked, "How often per quarter does instruction make connections among word meanings using semantic maps and word maps?" Of the 233 participants surveyed, 75 (32.2%) participants never provided instruction to make connections

among word meanings using semantic maps and word maps, 80 (34.3%) used semantic and word maps 1-4 times per quarter to make connections among words, 50 (21.5%) used semantic and word maps 5-9 times per quarter to make connections among words, and 28 (12.0%) used semantic maps and word maps 10 or more times per quarter. Similarly, participants were asked, "How often per quarter does your program and instruction provide lists of words to be taught?" Of the 233 surveyed, 37 reported that they never provided a list of words to be taught, 66 (28.4%) provided a list of words to be taught 1-4 times per quarter, 64 (27.5%) participants provided a list of words to be taught 5-9 times per semester, and 66 (28.3%) of the participants provided a list of words to be taught 10 or more times per semester.

Participants were asked, "How often per quarter are target words recognized, explained, explored, and used in texts?" Of the 233 participants, 13 (5.6%) reported that they never recognized, explained, or used target words in texts; 60 (25.7%) reported recognizing, explaining, and using target words in text 1-4 times per quarter; 78 (33.4%) reported recognizing, explaining, and using target words in text 5-9 times per quarter; and 82 (35.2%) reported recognizing, explaining, and using target words in text 10 or more times per quarter. The following question was asked: "How often per quarter does instruction guide students to use context to make sense of an unknown word?" Of the 233 teachers surveyed, 14 (6.0%) reported that their instruction never guided students to use context to make sense of an unknown word, 69 (22.3%) reported guiding students to use context 1-4 times per quarter, 86 (36.90%) reported guiding students to use context 5-9 times per quarter, and 81 (34.8%) respondents reported guiding students to use context to make sense of an unknown word 10 or more times per quarter.

To finish, participants were asked, "How often per quarter does your program review vocabulary words previously taught?" Of the 233 teachers surveyed, 11 (4.70%) never reviewed

vocabulary words previously taught, 86 (36.8%) review vocabulary words previously taught 1-4 times per quarter, 80 (34.3%) reviewed vocabulary words previously taught 5-9 times per quarter, and 56 (24.0%) reviewed vocabulary words previously taught 10 or more times per quarter. Each of the participants answers were added together to get a composite score based on questions related to vocabulary instruction. The vocabulary composite score was calculated by averaging the scores of the seven questions in this section of the survey (M = 6.04, SD = 2.37).

When comparing English/language arts teacher responses to the whole group, it was evident there were similarities in the responses. When asked the question, "On average how many times per quarter do you provide multiple opportunities for each student to read orally," 46.5% (n = 40) English/language arts teachers responded 10 or more times per quarter as compared to the whole group with 42.50% (n = 99). Similarly when asked the question, "On average how many times per quarter do you allow students to engage in three or four re-readings of text," 43.0% (n = 37) English/language arts teachers allowed this strategy to occur 1-4 times per quarter in comparison to 40.7% (n = 95) of the whole group (Table 2).

Table 2

Fluency Instruction–English/Language Arts Teachers

Question	Never	1-4	5-9	10+
Provide multiple opportunities for each student to read orally	4 (4.7%)	21 (24.5%)	21 (24.5%)	40 (46.5%)
Model fluency through read alouds	2 (2.3%)	12 (14.0%)	33 (38.4%)	39 (45.3%)
Emphasize appropriate speed, accuracy, and expression	8 (9.3%)	28 (32.6%)	30 (34.9%)	20 (23.3%)
Meet with small groups of students to evaluate fluency and provide feedback	31 (36.0%)	37 (43.1%)	8 (9.3%)	10 (11.6%)
Allow students to engage in three or four rereadings of text	18 (20.9%)	37 (43.0%)	24 (27.8%)	7 (8.1%)
Ensure that texts used in class vary in topic, genre, and organization	1 (1.2%)	13 (15.2%)	36 (41.9%)	36 (41.9%)
Students are exposed to text on their instructional level	3 (3.5%)	15 (17.5%)	28 (32.5%)	40 (46.5%)

When comparing science teacher responses to English/language arts teachers found in Table 3 regarding the frequency of fluency strategies used in instruction per quarter, English/language arts teachers implement more strategies than science teachers. Among the English/language arts teachers, 11.6% (n = 10) met with small groups of students to evaluate fluency and provide feedback 10 or more times per quarter in comparison to 1.5% (n = 1) of science teachers. When asked the question, "On average how many times per quarter do you provide multiple opportunities for each student to read orally," 32.4% (n = 22) of science teachers provided this opportunity 10 or more times per quarter in comparison to 42.5% (n = 99) of the whole group. Similarly, 72.1% (n = 49) of science teachers responded that they never met

with small groups of students to evaluate fluency and provide feedback, in comparison to 36.0% (*n* = 31) of English/language arts teachers. English/language arts teachers had a higher frequency of implementation of fluency strategies than science teachers.

Table 3

Fluency Instruction–Science Teachers

Question	Never	1-4	5-9	10+
Provide multiple opportunities for each student to read orally	10 (14.7%)	31 (45.5%)	5 (7.4%)	22 (32.4%)
Model fluency through read alouds	11 (16.2%)	20 (29.4%)	14 (20.6%)	23 (33.8%)
Emphasize appropriate speed, accuracy, and expression	24 (35.3%)	25 (26.5%)	12 (17.7%)	7 (10.3%)
Meet with small groups of students to evaluate fluency and provide feedback	49 (72.1%)	14 (20.6%)	4 (5.9%)	1 (1.5%)
Allow students to engage in three or four rereadings of text	22 (32.4%)	25 (36.8%)	9 (13.3%)	12 (17.6%)
Ensure that texts used in class vary in topic, genre, and organization	22 (32.4%)	28 (41.1%)	10 (14.7%)	8 (11.8%)
Students are exposed to text on their instructional level	6 (8.8%)	17 (25.0%)	13 (19.1%)	32 (47.1%)

When comparing the frequency of fluency strategies of social studies teachers to the whole group, it was evident that social studies teachers do not implement fluency strategies as frequently as other area teachers. Among social studies teachers, 30.4% (*n* = 14) model fluency through read alouds 10 or more times per quarter in comparison to 40.3% (*n* = 94) of the whole group. Social studies teachers do not view varying topic, genre, and organization or text as an important strategy as was evident with 19.6 % (*n* = 9) responded never, similarly 14.2% (*n* = 33)

of the whole group responded with never. When asked the question, "On average how many times per quarter do you provide multiple opportunities for each student to read orally," 32.4% (*n* = 22) of science teachers (Table 4) provide this opportunity 10 or more times per quarter in comparison to 37.0% (*n* = 22) of social studies teachers. Similarly, 72.1% (*n* = 49) of science teachers responded that they never met with small groups of students to evaluate fluency and provide feedback, this was consistent with 58.7% (*n* = 27) of social studies teachers (Table 4).

Table 4

Fluency Instruction–Social Studies Teachers

Question	Never	1-4	5-9	10+
Provide multiple opportunities for each student to read orally	4 (8.7%)	15 (32.5%)	10 (21.8%)	17 (37.0%)
Model fluency through read alouds	2 (4.3%)	11 (23.8%)	19 (41.3%)	14 (30.4%)
Emphasize appropriate speed, accuracy, and expression	9 (19.6%)	16 (34.8%)	14 (30.4%)	7 (15.2%)
Meet with small groups of students to evaluate fluency and provide feedback	27 (58.7%)	16 (34.7%)	3 (6.6%)	0 (0.0%)
Allow students to engage in three or four rereadings of text	12 (26.1%)	23 (50.0%)	5 (10.9%)	6 (13.0%)
Ensure that texts used in class vary in topic, genre, and organization	9 (19.6%)	14 (30.3%)	14 (30.4%)	9 (19.6%)
Students are exposed to text on their instructional level	3 (6.5%)	15 (32.7%)	15 (32.4%)	13 (28.3%)

When comparing the frequency of fluency strategies implemented per quarter of teachers teaching a combination of English/language arts, science, and social studies to the whole group, results vary (Table 5). Among teachers teaching a combination of the above subjects, 60.6% (*n*

= 20) provided multiple opportunities for each student to read orally 10 or more times per quarter in comparison to only 42.5% (*n* = 99) of the whole group. Similarly, 39.4% (*n* = 13) of teachers teaching a combination of the above subjects emphasized appropriate speed, accuracy, and expression 10 or more times per quarter as compared to 20.2% (*n* = 47) of the whole group. Responses were similar among teachers teaching a combination of the above subjects 45.5% (*n* = 15) and the whole group 42.9% (*n* = 100) when ensuring that students were exposed to text on their instructional level 10 or more times per quarter.

Table 5

Fluency Instruction–Combination of the Subjects

Question	Never	1-4	5-9	10+
Provide multiple opportunities for each student to read orally	0 (0.0%)	9 (27.3%)	4 (12.0%)	20 (60.6%)
Model fluency through read alouds	0 (0.0%)	5 (15.2%)	10 (30.3%)	18 (54.5%)
Emphasize appropriate speed, accuracy, and expression	2 (6.1%)	10 (30.3%)	8 (24.2%)	13 (39.4%)
Meet with small groups of students to evaluate fluency and provide feedback	8 (24.2%)	11 (33.4%)	6 (18.1%)	8 (24.2%)
Allow students to engage in three or four rereadings of text	4 (12.1%)	10 (30.3%)	11 (33.4%)	8 (24.2%)
Ensure that texts used in class vary in topic, genre, and organization	1 (3.0%)	16 (48.6%)	10 (30.2%)	6 (18.2%)
Students are exposed to text on their instructional level	2 (6.1%)	8 (24.3%)	8 (24.3%)	15 (45.5%)

When comparing English/language arts teachers to the whole group in regard to comprehension strategies, it was evident that English/language arts teachers spent more time per

quarter implementing comprehension strategies (Table 6). In response to the question, “How often per quarter does instruction include major strategies to promote comprehension such as summarization, student questioning, use of prior knowledge, metacognition/comprehension monitoring, graphic organizers, and visualization,” 64.0% (*n* = 55) of English/language arts teachers included this strategy 10 or more times per quarter in comparison to 42.9% (*n* = 100) of the whole group. Likewise, in response to the question, “How often per quarter do you emphasize both memory—the literal recall of information stated by authors and inferencing or interpretation—going beyond what the author is saying,” 41.9% (*n* = 36) English/language arts teachers included this strategy 10 or more times per quarter in comparison to only 32.2% (*n* = 75) of the whole group.

Table 6

Comprehension Instruction–English/Language Arts Teachers

Question	Never	1-4	5-9	10+
Strategies to promote comprehension such as summarization, student questioning, use of prior knowledge, metacognition/comprehension monitoring, graphic organizers, and visualization	3 (3.5%)	10 (11.6%)	21 (24.4%)	55 (64.0%)
Discuss prior knowledge with students before beginning a lesson	1 (1.2%)	10 (11.7%)	31 (36.1%)	45 (52.3%)
Students turn and talk about the text read	5 (5.8%)	24 (28.0%)	37 (43.0%)	20 (23.3%)
Vary the size of strategy instructional groups to discuss books, focus on strategy use, or introduce more challenging texts to students	11 (12.8%)	27 (31.5%)	38 (44.2%)	10 (11.6%)
Spend instructional time helping student identify their reading miscues so they can learn to self-correct	21 (24.4%)	41 (47.8%)	15 (17.4%)	9 (10.5%)
Provide time for daily sustained silent reading with texts at your students independent reading level	3 (3.5%)	24 (31.5%)	22 (25.5%)	37 (43.0%)
Emphasize both memory, the literal recall of information stated by authors and inferencing, or interpretation, going beyond what the author is saying	4 (4.7%)	15 (1.6%)	35 (40.7%)	36 (41.9%)

When comparing science teacher's utilization of comprehension strategies per quarter to that of the whole group, it was evident that science teachers did not implement comprehension strategies often per quarter (Table 7). Among science teachers, 48.5% (n = 33) responded that

they included major strategies to promote comprehension such as summarization, student questioning, use of prior knowledge, metacognition/comprehension monitoring, graphic organizers, and visualization 10 or more times per quarter in comparison to 54.9% (*n* = 128) of the whole group. When asked the question, “How often per quarter do you emphasize both memory—the literal recall of information stated by authors and inferencing or interpretation—going beyond what the author is saying,” 25.0% (*n* = 17) of science teachers never utilize the strategy in comparison to 9.9% (*n* = 23) of the whole group.

Table 7

Comprehension Strategies–Science Teachers

Question	Never	1-4	5-9	10+
Strategies to promote comprehension such as summarization, student questioning, use of prior knowledge, metacognition/comprehension monitoring, graphic organizers, and visualization	3 (4.4%)	15 (38.3%)	17 (25.1%)	33 (48.5%)
Discuss prior knowledge with students before beginning a lesson	1 (1.5%)	8 (11.8%)	18 (26.5%)	41 (60.3%)
Students turn and talk about the text read	7 (10.3%)	16 (23.6%)	24 (35.3%)	21 (30.9%)
Vary the size of strategy instructional groups to discuss books, focus on strategy use, or introduce more challenging texts to students	22 (32.4%)	29 (42.7%)	12 (16.3%)	5 (7.4%)
Spend instructional time helping student identify their reading miscues so they can learn to self-correct	30 (44.1%)	27 (39.6%)	10 (14.8%)	1 (1.5%)
Provide time for daily sustained silent reading with texts at your students independent reading level	19 (27.9%)	26 (38.3%)	11 (16.2%)	12 (17.6%)
Emphasize both memory, the literal recall of information stated by authors and inferencing, or interpretation, going beyond what the author is saying	17 (25.0%)	20 (29.4%)	17 (24.9%)	14 (20.6%)

When comparing the frequency of comprehension strategies of social studies teachers to science teachers, results were similar. Among social studies teachers, 50.0% (n = 23) promoted comprehension such as summarization, student questioning, use of prior knowledge,

metacognition, graphic organizers, and visualization in comparison to 48.5% (*n* = 33) of science teachers. Among social studies teachers, 4.3% (*n* = 2) never varied the size of instructional groups to discuss books, focus on strategy use, or introduce more challenging texts to students in comparison to 32.4% (*n* = 22) of science teachers that reported never implementing the strategy per quarter (Table 8). When comparing the frequency of comprehension strategies of social studies teachers to that of the whole group, social studies teachers utilized comprehension strategies more frequently. One example, when asked, How often per quarter do you discuss prior knowledge with students before beginning a lesson, 60.3% (*n* = 41) of social studies teachers implement the strategies 10 or more times per quarter in comparison to 53.2% (*n* = 124) of the whole group.

Table 8

Comprehension Strategies–Social Studies Teachers

Question	Never	1-4	5-9	10+
Strategies to promote comprehension such as summarization, student questioning, use of prior knowledge, metacognition/comprehension monitoring, graphic organizers, and visualization	3 (4.4%)	15 (38.3%)	17 (25.1%)	33 (48.5%)
Discuss prior knowledge with students before beginning a lesson	1 (1.5%)	8 (11.8%)	18 (26.5%)	41 (60.3%)
Students turn and talk about the text read	7 (10.3%)	16 (23.6%)	24 (35.3%)	21 (30.9%)
Vary the size of strategy instructional groups to discuss books, focus on strategy use, or introduce more challenging texts to students	22 (32.4%)	29 (42.7%)	12 (16.3%)	5 (7.4%)
Spend instructional time helping student identify their reading miscues so they can learn to self-correct	30 (44.1%)	27 (39.6%)	10 (14.8%)	1 (1.5%)
Provide time for daily sustained silent reading with texts at your students independent reading level	19 (27.9%)	26 (38.3%)	11 (16.2%)	12 (17.6%)
Emphasize both memory, the literal recall of information stated by authors and inferencing, or interpretation, going beyond what the author is saying	17 (25.0%)	20 (29.4%)	17 (24.9%)	14 (20.6%)

When comparing the frequency of implementation of comprehension strategies of teachers teaching a combination of English/language arts, science, and social studies to the whole group, results are similar (Table 9). Among teachers teaching a combination of the above

subjects, 51.5% (*n* = 17) promote comprehension such as summarization, student questioning, use of prior knowledge, metacognition, graphic organizers, and visualization 10 or more times as compared to 54.9% (128) of the whole group. Among the teachers teaching a combination of the above subjects, 39.4% (*n* = 13) provided time for daily sustained reading in comparison 10 or more times per quarter which was similar to 31.8% (*n* = 74) of the whole group.

Table 9

Comprehension Strategies–Combination of Subjects

Question	Never	1-4	5-9	10+
Strategies to promote comprehension such as summarization, student questioning, use of prior knowledge, metacognition/comprehension monitoring, graphic organizers, and visualization	0 (0.0%)	10 (30.3%)	6 (18.2%)	17 (51.5%)
Discuss prior knowledge with students before beginning a lesson	0 (0.0%)	7 (21.2%)	8 (24.2%)	18 (54.5%)
Students turn and talk about the text read	2 (6.1%)	9 (27.3%)	9 (27.3%)	13 (39.4%)
Vary the size of strategy instructional groups to discuss books, focus on strategy use, or introduce more challenging texts to students	5 (15.2%)	18 (54.5%)	8 (24.3%)	2 (6.1%)
Spend instructional time helping student identify their reading miscues so they can learn to self-correct	5 (15.2%)	12 (36.3%)	8 (24.3%)	8 (24.2%)
Provide time for daily sustained silent reading with texts at your students independent reading level	6 (18.2%)	5 (15.2%)	9 (27.3%)	13 (39.4%)
Emphasize both memory, the literal recall of information stated by authors and inferencing, or interpretation, going beyond what the author is saying	1 (3.0%)	11 (33.3%)	9 (27.2%)	12 (36.4%)

When comparing the response of English/language arts teachers to the whole group in regard to vocabulary instruction, results were similar. When asked the question, “How often per quarter does instruction provide clear explanations with examples of word meanings,” 53.5% (*n*

= 46) English/language arts teachers responded with 10 or more times per quarter compared to 51.1% (*n* = 119) of the whole group (Table 10). Among the whole group, 32.6% (*n* = 76) responded to encouraging use of students personal examples of word meanings 10 or more times per quarter compared to 32.6% (*n* = 28) English/language arts teachers. Both English/language arts teachers 41.9% (*n* = 36) and science teachers 39.7% (*n* = 27) felt strongly about reviewing vocabulary words previously taught 10 or more times per quarter.

Table 10

Vocabulary Instruction–English/Language Arts Teachers

Question	Never	1-4	5-9	10+
Provides clear explanations with examples of word meanings	0 (0.0%)	12 (14.0%)	28 (32.7%)	46 (53.5%)
Encourages use of student's personal examples of word meanings	0 (0.0%)	22 (25.6%)	36 (41.9%)	28 (32.6%)
Makes connections among word meanings using semantic maps and word maps	21 (24.4%)	30 (34.8%)	27 (31.5%)	8 (9.3%)
Provides lists of words to be taught	17 (19.8%)	24 (27.8%)	30 (35.0%)	15 (17.4%)
Targets words recognized, explained, explored, and used in texts	3 (3.5%)	25 (29.1%)	36 (41.9%)	22 (25.6%)
Guides students to use context to make sense of unknown words	0 (0.0%)	12 (14.0%)	38 (44.1%)	36 (41.9%)
Reviews vocabulary words previously taught	4 (4.7%)	15 (17.6%)	35 (40.7%)	36 (41.9%)

When comparing the response of English/language arts teachers to the whole group in regard to vocabulary instruction, results were similar (Table 11). When asked the question,

"How often per quarter does instruction provide clear explanations with examples of word meanings," 53.5% (*n* = 46) English/language arts teachers responded with 10 or more times per quarter compared to 51.1% (*n* = 119) of the whole group. Among the whole group, 32.6% (*n* = 76) responded to encouraging use of students personal examples of word meanings 10 or more times per quarter compared to 32.6% (*n* = 28) English/language arts teachers. Both English/language arts teachers 41.9% (*n* = 36) and science teachers 39.7% (*n* = 27) felt strongly about reviewing vocabulary words previously taught 10 or more times per quarter.

Table 11

Vocabulary Instruction–Science Teachers

Question	Never	1-4	5-9	10+
Provides clear explanations with examples of word meanings	1 (1.5%)	16 (23.5%)	13 (19.1%)	38 (55.9%)
Encourages use of student's personal examples of word meanings	8 (11.8%)	17 (25.0%)	19 (27.8%)	24 (35.3%)
Makes connections among word meanings using semantic maps and word maps	24 (35.3%)	23 (33.8%)	11 (16.2%)	10 (14.7%)
Provides lists of words to be taught	11 (16.2%)	17 (25.0%)	14 (20.7%)	26 (38.2%)
Targets words recognized, explained, explored, and used in texts	6 (8.8%)	17 (25.0%)	14 (20.5%)	31 (45.6%)
Guides students to use context to make sense of unknown words	7 (10.3%)	23 (33.9%)	18 (26.4%)	20 (29.4%)
Reviews vocabulary words previously taught	3 (4.4%)	15 (22.0%)	23 (33.8%)	27 (39.7%

When comparing social studies teacher's responses to the whole group regarding vocabulary instruction, results are similar (Table 12). When asked, "How often per quarter does instruction provide clear explanations with examples of word meanings," 39.1% (*n* = 18) of social studies responded to 10 or more times in comparison to 51.1% (*n* = 119) of the whole group. It is evident that clear explanations with examples of word meanings are viewed as an important strategy among teachers. Likewise, 30.4% (*n* = 14) of social studies teachers provide lists of words to be taught 10 or more times per quarter which is similar to 28.3% (*n* = 66) of the whole group.

Table 12

Vocabulary Instruction–Social Studies Teachers

Question	Never	1-4	5-9	10+
Provides clear explanations with examples of word meanings	1 (2.2%)	12 (26.1%)	15 (32.6%)	18 (39.1%)
Encourages use of student's personal examples of word meanings	4 (8.7%)	18 (39.1%)	12 (26.1%)	24 (35.3%)
Makes connections among word meanings using semantic maps and word maps	23 (50.0%)	13 (28.2%)	6 (13.0%)	4 (8.7%)
Provides lists of words to be taught	5 (10.9%)	18 (39.1%)	9 (19.6%)	14 (30.4%)
Targets words recognized, explained, explored, and used in texts	2 (4.3%)	13 (28.2%)	14 (30.5%)	17 (37.0%)
Guides students to use context to make sense of unknown words	7 (15.2%)	11 (23.8%)	15 (32.5%)	13 (28.3%)
Reviews vocabulary words previously taught	1 (2.2%)	21 (45.7%)	13 (28.2%)	11 (23.9%)

When comparing the frequency of the implementation of vocabulary strategies of teachers teaching a combination of English/language arts, science, and social studies, results were similar to the whole group (Table 13). Among teachers teaching a combination of the above subjects, 51.5% (*n* = 17) provide clear explanations with examples of word meanings 10 or more times per quarter compared to 51.1% (*n* = 119) of the whole group. Similarly, 36.4% (*n* = 12) of teachers teaching a combination of the above subjects view target words recognized, explained, explored, and used in texts as an important strategy implementing it 10 or more times per quarter as compared to 34.8% (*n* = 82) of the whole group.

Table 13

Vocabulary Instruction–Combination of Subjects

Question	Never	1-4	5-9	10+
Provides clear explanations with examples of word meanings	0 (0.0%)	7 (21.2%)	9 (27.3%)	17 (51.5%)
Encourages use of student's personal examples of word meanings	0 (0.0%)	6 (18.2%)	15 (45.5%)	12 (36.4%)
Makes connections among word meanings using semantic maps and word maps	7 (21.2%)	14 (42.5%)	6 (18.1%)	6 (18.2%)
Provides lists of words to be taught	4 (12.1%)	7 (21.2%)	11 (33.4%)	11 (33.3%)
Targets words recognized, explained, explored, and used in texts	2 (6.1%)	5 (15.2%)	14 (42.4%)	12 (36.4%)
Guides students to use context to make sense of unknown words	0 (0.0%)	6 (18.1%)	15 (45.4%)	12 (36.4%)
Reviews vocabulary words previously taught	2 (6.1%)	11 (33.4%)	13 (39.4%)	7 (21.2%)

When comparing teachers with a reading specialist degree to those who did not have a reading specialist degree, results varied. Among teachers with a reading specialist degree, 60.0% (*n* = 18) modeled fluency through read alouds 10 or more times per quarter compared to 37.4% (*n* = 76) of teachers who did not possess a reading degree. Similarly, teachers with a reading specialist degree allowed students to engage in three or four rereadings of text more often than those without a reading specialist degree. When asked the question, "On average how often per quarter do you allow students to engage in three or four rereadings of text," 23.3% (*n* = 7) teachers with a reading specialist degree responded with 10 or more times per quarter compared to 12.8% (*n* = 26) of teachers who did not have a reading specialist degree. When asked, "How often per quarter do you ensure that students are exposed to text on their instructional level," 56.7% (*n* = 17) of teachers with a reading specialist degree implemented the strategy 10 or more times per quarter compared to 40.9% (n = 83) of teachers without a reading specialist degree (see Tables 14 and 15).

Table 14

Reading Special Fluency–Teacher Holds a Reading Specialist Certificate

Question	Never	1-4	5-9	10+
Allowed for multiple opportunities for each student to read orally	3 (10.0%)	7 (16.7%)	9 (30.0%)	13 (43.3%)
Modeled fluency through read alouds	0 (0.0%)	7 (23.4%)	5 (16.6%)	18 (60.0%)
Emphasized appropriate speed, accuracy, and expression	4 (13.3%)	9 (30.0%)	10 (33.2%)	7 (23.3%)
Met with small groups of student to evaluate fluency and provide feedback	14 (46.7%)	8 (26.7%)	3 (9.9%)	5 (16.7%)
Allowed students to engage in three or four rereadings of text	4 (13.3%)	14 (46.7%)	5 (16.6%)	7 (23.3%)
Ensured that texts used in class varied topic, genre, and organization	2 (6.7%)	5 (16.6%)	13 (43.3%)	10 (33.3%)
Ensured that students were exposed to text on their instructional level	0 (0.0%)	5 (16.7%)	6 (20.0%)	17 (56.7%)

Table 15

Reading Specialist Fluency–Teacher Does Not Hold Reading Specialist Certificate

Question	Never	1-4	5-9	10+
Allowed for multiple opportunities for each student to read orally	15 (7.4%)	71 (34.9%)	31 (15.3%)	86 (42.4%)
Modeled fluency through read alouds	15 (7.4%)	41 (20.1%)	71 (34.9%)	76 (37.4%)
Emphasized appropriate speed, accuracy, and expression	39 (19.2%)	70 (34.5%)	54 (26.6%)	40 (19.7%)
Met with small groups of student to evaluate fluency and provide feedback	101 (49.8%)	70 (34.4%)	18 (8.9%)	14 (6.9%)
Allowed students to engage in three or four re-readings of text	52 (25.6%)	81 (39.8%)	44 (21.6%)	26 (12.8%)
Ensured that texts used in class varied topic, genre, and organization	31 (15.3%)	66 (98.5%)	57 (28.1%)	49 (24.1%)
Ensured that students were exposed to text on their instructional level	12 (5.9%)	50 (24.7%)	58 (28.4%)	83 (40.9%)

When comparing the frequency of implementation of comprehension strategies used by teachers with a reading specialist degree to those who do not have a reading specialist degree, teachers with a reading specialist degree implemented strategies more often than those who did not have a reading specialist degree. Teachers with a reading specialist degree were more likely to promote comprehension such as summarization, student questioning, use of prior knowledge, metacognition/comprehension monitoring, graphic organizers, and visualization with 66.7% (n = 20) implementing the strategy 10 or more times per quarter compared to 53.2% (n = 108) of teachers without a reading specialist degree. Similarly, teachers with a reading degree were more likely to provide time for daily sustained silent reading with texts at the students

independent reading level with 40.0% (*n* = 12) implementing the strategy 10 or more times per quarter compared to 30.5% (*n* = 62) of teachers without a reading specialist degree (see Tables 16 and 17).

Table 16

Reading Specialist Comprehension–Teacher Holds Reading Specialist Certificate

Question	Never	1-4	5-9	10+
Strategies to promote comprehension such as summarization, student questioning, use of prior knowledge, metacognition/comprehension monitoring, graphic organizers, and visualization	0 (0.0%)	3 (10.0%)	7 (23.3%)	20 (66.7%)
Discuss prior knowledge with students before beginning a lesson	0 (0.0%)	2 (6.6%)	10 (33.3%)	18 (60.0%)
Students turn and talk about the text read	2 (6.7%)	7 (23.3%)	13 (43.4%)	8 (26.7%)
Vary the size of strategy instructional groups to discuss books, focus on strategy use, or introduce more challenging texts to students	2 (6.7%)	10 (33.3%)	15 (50.0%)	3 (10.0%)
Spend instructional time helping student identify their reading miscues so they can learn to self-correct	8 (26.7%)	12 (40.0%)	7 (23.4%)	3 (10.0%)
Provide time for daily sustained silent reading with texts at your students independent reading level	1 (3.3%)	9 (30.0%)	8 (26.6%)	12 (40.0%)
Emphasize both memory, the literal recall of information stated by authors and inferencing, or interpretation, going beyond what the author is saying	1 (3.3%)	5 (16.6%)	10 (33.3%)	14 (46.7%)

Table 17

Reading Specialist Comprehension–Teacher Does Not Hold Reading Specialist Certificate

Question	Never	1-4	5-9	10+
Strategies to promote comprehension such as summarization, student questioning, use of prior knowledge, metacognition/comprehension monitoring, graphic organizers, and visualization	3 (1.5%)	45 (22.1%)	47 (23.0%)	108 (53.2%)
Discuss prior knowledge with students before beginning a lesson	2 (1.0%)	30 (14.9%)	65 (32.0%)	106 (52.2%)
Students turn and talk about the text read	19 (9.4%)	61 (30.0%)	67 (33.0%)	56 (27.6%)
Vary the size of strategy instructional groups to discuss books, focus on strategy use, or introduce more challenging texts to students	52 (25.6%)	82 (40.4%)	53 (26.2%)	16 (7.9%)
Spend instructional time helping student identify their reading miscues so they can learn to self-correct	63 (31.0%)	87 (42.8%)	35 (17.3%)	18 (8.9%)
Provide time for daily sustained silent reading with texts at your students independent reading level	42 (20.2%)	56 (27.6%)	44 (21.6%)	62 (30.5%)
Emphasize both memory, the literal recall of information stated by authors and inferencing, or interpretation, going beyond what the author is saying	22 (10.8%)	57 (28.1%)	63 (31.0%)	61 (30.0%)

When comparing the frequency in which teachers with a reading specialist degree implemented vocabulary strategies per quarter to teachers who did not possess a reading specialist degree, vocabulary instruction was implemented frequently per quarter. Among

teachers with a reading specialist degree, 63.3% (*n* = 19) and 49.3% (*n* = 100) of teachers without a reading specialist degree provided clear explanations with examples of word meanings 10 or more times per quarter. Both groups responded similar to the question, "How often per quarter do you guide students to use context to make sense of an unknown word," with 33.3% (*n* = 10) teachers with a reading specialist degree implementing the strategy 10 or more times and 35.0% (*n* = 48) teachers without a reading specialist degree (see Tables 18 and 19).

Table 18

Reading Specialist Vocabulary–Teacher Holds Reading Specialist Certificate

Question	Never	1-4	5-9	10+
Provides clear explanations with examples of word meanings	0 (0.0%)	3 (9.9%)	8 (26.6%)	19 (63.3%)
Encourages use of student's personal examples of word meanings	0 (0.0%)	5 (30.0%)	10 (33.3%)	11 (36.7%)
Makes connections among word meanings using semantic maps and word maps	8 (26.7%)	11 (36.6%)	7 (23.2%)	4 (13.3%)
Provides lists of words to be taught	5 (16.7%)	5 (16.7%)	10 (33.3%)	10 (33.3%)
Targets words recognized, explained, explored, and used in texts	1 (3.3%)	6 (20.0%)	9 (30.0%)	14 (46.7%)
Guides students to use context to make sense of unknown words	1 (3.3%)	4 (13.4%)	15 (50.0%)	10 (33.3%)
Reviews vocabulary words previously taught	2 (6.7%)	11 (36.6%)	9 (29.9%)	8 (26.7%)

Table 19

Reading Specialist Vocabulary–Teacher Does Not Hold Reading Specialist Certificate

Question	Never	1-4	5-9	10+
Provides clear explanations with examples of word meanings	2 (1.0%)	44 (21.8%)	57 (28.0%)	100 (49.3%)
Encourages use of student's personal examples of word meanings	12 (5.9%)	54 (26.6%)	72 (35.5%)	65 (32.0%)
Makes connections among word meanings using semantic maps and word maps	67 (33.0%)	69 (34.0%)	43 (21.2%)	24 (11.8%)
Provides lists of words to be taught	32 (15.8%)	61 (30.0%)	54 (26.5%)	56 (27.6%)
Targets words recognized, explained, explored, and used in texts	12 (5.9%)	54 (26.7%)	69 (34.0%)	68 (33.5%)
Guides students to use context to make sense of unknown words	13 (6.4%)	48 (23.6%)	71 (35.0%)	71 (35.0%)
Reviews vocabulary words previously taught	9 (4.4%)	75 (37.0%)	71 (34.9%)	48 (23.6%)

Hypotheses Testing

The first three nulls were tested with independent sample *t* tests to determine differences on the implementation of research-based strategies based on school performance level while holding SES levels constant. Results were split into two groups, high-poverty and low-poverty. Multiple regression analysis was conducted for the fourth null hypothesis to determine whether enough variance could be explained in the criterion variable by the set of predictor variables. A multiple regression was appropriate because there was one criterion variable and at least two predictor variables. The multiple regression was used with all respondents in the sample.

$H_0$1a. "There is no significant difference on the utilization of research-based fluency strategies based on school performance level while controlling for high SES levels." Among the schools with low-poverty levels, schools with high achievement were compared to schools with low achievement on the frequency of implementation of research-based fluency strategies. The independent samples *t* test was chosen to look for significant difference on one dependent variable (fluency composite score) with two groups.

To ensure the accuracy of the findings, the assumptions of the independent samples *t*-test were examined. Scores on the dependent variable were inspected to ensure that neither group had an outlier that could potentially impact the results of this inferential test. To determine whether an outlier was present within the dependent variable scores, box plots were examined. There was no evidence of the presence of an outlier as all data points were within 1.5 standard deviations from the edge of the box.

The assumption of normality was tested using a Shapiro Wilks test to ensure the scores on the dependent variable had a normal distribution for both groups. The assumption of normality was met with a Shapiro Wilks test having $p > .05$. The assumption of homogeneity of variance was tested to ensure both groups had equal variance on the dependent variable scores. The Levene's test of equality of variance was not significant, $F = 1.605$, $p = .209$. The assumption of homogeneity of variance had been met.

Low-achieving, low-poverty schools ($M = 6.50$, $SD = 2.53$) used significantly more fluency strategies than the high-achieving, low-poverty schools ($M = 5.09$, $SD = 2.19$). This was evident based on a significant independent samples *t* test, $t(71) = -2.545$, $p = .013$, two-tailed. The reported implementation of research-based fluency strategies was significantly higher

among low-achieving schools compared to high-achieving schools among low-poverty schools in the study.

$H_0$1b. "There is no significant difference on the utilization of research-based fluency strategies based on school performance level while controlling for low SES levels." Among the schools with high-poverty levels, schools with high achievement were compared to schools with low achievement on the frequency of implementation of research-based fluency strategies. The independent samples *t*-test was chosen to identify a significant difference on one dependent variable (fluency composite score) with two groups.

To ensure the accuracy of the findings the assumptions of the independent samples *t*-test were examined. Scores on the dependent variable were inspected to ensure that neither group had an outlier that could potentially impact the results of this inferential test. To determine whether an outlier was present within the dependent variable scores box plots were examined. There was no evidence of the presence of an outlier as all data points were within 1.5 standard deviations from the edge of the box.

The assumption of normality was tested using a Shapiro Wilks test to ensure the scores on the dependent variable had a normal distribution for both groups. The assumption of normality was met with a Shapiro Wilks test having $p > .05$. The assumption of homogeneity of variance was tested to ensure both groups had equal variance on the dependent variable scores. The Levene's test of equality of variance was not significant, $F = .019$, $p = .891$. The assumption of homogeneity of variance was met.

There was no significant difference in the frequency of fluency strategies among low-achieving, high-poverty schools ($M = 6.32$, $SD = 2.31$) and high-achieving, high-poverty schools ($M = 5.29$, $SD = 2.41$). This was evident based on a significant independent samples *t* test,

$t(158) = -1.845$, $p = .067$, two-tailed. There was no significant difference on the reported implementation of research-based fluency strategies among low-achieving schools compared to high-achieving schools among high-poverty schools in this study.

Ho2a. "There is no a significant difference on the utilization of research-based comprehension strategies based on school performance level while controlling for high SES levels." Among the schools with low-poverty levels, schools with high achievement were compared to schools with low achievement on the frequency of implementation of research-based comprehension strategies. The independent samples *t* test was chosen due to looking for significant difference on one dependent variable (comprehension composite score) with two groups.

To ensure the accuracy of the findings, the assumptions of the independent samples *t* test were examined. Scores on the dependent variable were inspected to ensure that neither group had an outlier that could potentially impact the results of this inferential test. To determine whether an outlier was present within the dependent variable scores, box plots were examined. There was no evidence of the presence of an outlier as all data points were within 1.5 standard deviations from the edge of the box.

The assumption of normality was tested using a Shapiro-Wilks test to ensure the scores on the dependent variable had a normal distribution for both groups. The assumption of normality was met with a Shapiro-Wilks test having $p > .05$. The assumption of homogeneity of variance was tested to ensure both groups had equal variance on the dependent variable scores. The Levene's test of equality of variance was not significant, $F = .362$, $p = .549$. The assumption of homogeneity of variance was met.

There was no significant difference in the frequency of comprehension strategies among low-achieving, low-poverty schools (M = 7.13, SD = 2.01) and high-achieving, low-poverty schools (M = 6.49, SD = 2.01). This was evident based on a significant independent samples t test, $t(71) = -1.381$, $p = .172$, two-tailed. There was no significant difference in the reported implementation of research-based comprehension strategies among low-achieving schools compared to high-achieving schools among low-poverty schools in this study.

$H_0$2b. "There is no significant difference on the utilization of research-based comprehension strategies based on school performance level while controlling for low SES levels." Among the schools with high-poverty levels, schools with high achievement were compared to schools with low achievement on the frequency of implementation of research-based comprehension strategies. The independent samples t test was chosen to identify a significant difference on one dependent variable (comprehension composite score) with two groups.

To ensure the accuracy of the findings the assumptions of the independent samples t-test were examined. Scores on the dependent variable were inspected to ensure that neither group had an outlier that could potentially impact the results of this inferential test. To determine whether an outlier was present within the dependent variable scores box plots were examined. There was no evidence of the presence of an outlier as all data points were within 1.5 standard deviations from the edge of the box.

The assumption of normality was tested using a Shapiro-Wilks test to ensure the scores on the dependent variable have a normal distribution for both groups. The assumption of normality was met with a Shapiro-Wilks test having $p > .05$. The assumption of homogeneity of variance was tested to ensure both groups had equal variance on the dependent variable scores.

The Levene's test of equality of variance was not significant, $F = .384$, $p = .536$. The assumption of homogeneity of variance was met.

Low-achieving, high-poverty schools ($M = 6.71$, $SD = 1.98$) used significantly more comprehension strategies than the high-achieving, high-poverty schools ($M = 5.72$, $SD = 2.11$). This was evident based on a significant independent samples *t* test, $t(158) = -2.090$, $p = .038$, two-tailed. The reported implementation of research-based comprehension strategies was significantly higher among low-achieving schools compared to high-achieving schools among high-poverty schools in this study.

$H_0$3a. "There is no significant difference on the utilization of research-based vocabulary development strategies based on school performance level while controlling for high SES levels." Among the schools with low-poverty levels, schools with high achievement were compared to schools with low achievement on the frequency of implementation of research-based vocabulary strategies. The independent samples *t* test was chosen due to looking for significant difference on one dependent variable (vocabulary composite score) with two groups.

To ensure the accuracy of the findings, the assumptions of the independent samples *t*-test were examined. Scores on the dependent variable were inspected to ensure that neither group had an outlier that could potentially impact the results of this inferential test. To determine whether an outlier was present within the dependent variable scores, box plots were examined. There was no evidence of the presence of an outlier as all data points were within 1.5 standard deviations from the edge of the box.

The assumption of normality was tested using a Shapiro-Wilks test to ensure the scores on the dependent variable had a normal distribution for both groups. The assumption of normality was met with a Shapiro-Wilks test having $p > .05$. The assumption of homogeneity of

variance was tested to ensure both groups had equal variance on the dependent variable scores. The Levene's test of equality of variance was not significant, $F = 1.605$, $p = .209$. The assumption of homogeneity of variance was met.

There was no significant difference in the frequency of vocabulary strategies among low-achieving, low-poverty schools ($M = 7.21$, $SD = 1.98$) and high-achieving, low-poverty schools ($M = 7.03$, $SD = 2.32$). This was evident based on a significant independent samples t test, $t(71) = -.360$, $p = .720$, two-tailed. There was no significant difference in the reported implementation of research-based vocabulary strategies among low-achieving schools compared to high-achieving schools among low-poverty schools in this study.

$H_0$3b. "There is no significant difference on the utilization of research-based vocabulary development strategies based on school performance level while controlling for low SES levels." Among the schools with high-poverty levels, schools with high achievement were compared to schools with low achievement on the frequency of implementation of research-based vocabulary strategies. The independent samples t-test was chosen due to looking for significant difference on one dependent variable (vocabulary composite score) with two groups.

To ensure the accuracy of the findings, the assumptions of the independent samples t-test were examined. Scores on the dependent variable were inspected to ensure that neither group had an outlier that could potentially impact the results of this inferential test. To determine whether an outlier was present within the dependent variable scores, box plots were examined. There was no evidence of the presence of an outlier as all data points were within 1.5 standard deviations from the edge of the box.

The assumption of normality was tested using a Shapiro-Wilks test to ensure the scores on the dependent variable had a normal distribution for both groups. The assumption of

normality was met with a Shapiro-Wilks test having $p > .05$. The assumption of homogeneity of variance was tested to ensure both groups had equal variance on the dependent variable scores. The Levene's test of equality of variance was not significant, $F = .384$, $p = .536$. The assumption of homogeneity of variance was met.

There was no significant difference in the frequency of vocabulary strategies among low-achieving, high-poverty schools ($M = 6.98$, $SD = 2.22$) and high-achieving, high-poverty schools ($M = 6.29$, $SD = 2.45$). This was evident based on a significant independent samples t test, $t(158) = -1.261$, $p = .209$, two-tailed. There was not a significant difference in the reported implementation of research-based vocabulary strategies among low-achieving schools compared to high-achieving schools among high-poverty schools in the study.

$H_0$4. "SES level, fluency instruction, comprehension instruction, and vocabulary instruction do not serve as predictors of language arts performance level." A multiple regression was performed to determine if SES, fluency instruction, comprehension instruction, and vocabulary instruction serve as predictors to performance on the language arts portion of ISTEP+. Multiple regression assumptions were studied to confirm the data gave accurate results. The Durbin Watson test was used to confirm that there was no correlation between the residuals. To be met, the assumption looks for the value around 2. The test gives a range from 0-4. The closer the number is to 2, the less correlation between the residuals. The assumption was met as the Durbin Watson score was approximately 2.0.

The assumption of linearity was examined using partial regression plots in order to determine whether the relationship between the predictor variables and the criterion variable were linear in nature. The pattern found within these plots demonstrated a linear relationship as increases in the x-axis led to similar impacts on the y-axis thus the assumption has been met.

The assumption of homoscedasticity was tested using the plot of studentized residuals versus the unstandardized predicted values. There was a lack of evidence for increased levels of residual spreading thus demonstrating the assumption was met. The assumption of no multicollinearity looks to ensure that the predictor variables are not too heavily correlated which would result in being unable to determine which variable was explaining the variance in the criterion variable. This assumption was met as the tolerance levels in each of the predictor variables were above the 0.2 threshold.

The assumption of normality of residuals was tested by examining the normal p-plot of regression. This assumption was met as the residual data points were aligned with the diagonal line within the plot.

Within the model summary data, the multiple correlation coefficients (R) spoke to the strength of the relationship with scores closer to 1 indicating a stronger relationship. The R value of .734 indicated a strong relationship between the criterion variable and the set of predictor variables. The multiple coefficient of determination (R^2) represented the amount of variance within the criterion variable which was explained by the linear combination of predictor variables. The R^2 value of .539 indicated the 53.9% of the variance within achievement percentage was explained by the predictor variables.

The adjusted multiple coefficient of determination (Adj. R^2) was a more conservative figure of the variance explained within the model after being adjusted for sample size and number of predictors. Adjusted R^2 values of .531 indicated that 53.1% of the variance within achievement percent was being explained by the predictor variables. After the adjustment within the model was made, the amount of explained variance lost (shrinkage) was .008. The standard

error of the estimate (8.43) represented the average residual difference each data point had from the prediction line within the model.

A predictor variable within the model explained a significant amount of variance, $F(4,228) = 66.707$, $p < .001$. At least one of the predictor variables within the model was a significant predictor for the achievement percentage. Among the predictor variables, SES as represented by free and reduced lunch percentage and was the only significant predictor within the model. SES was significant, $t = -15.926$, $p < .001$. Through examination of the unstandardized partial regression coefficient, the predicted value for achievement percentage for a school with zero percentage of free and reduced lunch students was expected to have 95.1% of students passing English/language arts ISTEP+. It was predicted the English/language arts ISTEP+ pass rate would decrease by .509 for every one percentage increase in the free and reduced lunch percentage while holding all other variables constant. The standardized partial regression coefficients were not examined to determine the rank order for significant predictors due to only having one significant predictor (SES). The three research-based literacy areas within the study were non-significant.

As described in Chapter 3, the strength of the relationship between SES and achievement percentage may not have caused enough variance left within the model to be explained by the literacy predictor variables. To determine whether a significant linear relationship existed among any of the literacy predictor variables and the achievement percentage, follow up linear regression tests were completed. These linear regression tests determined whether each of the predictor variables explained a significant amount of variance within the criterion variable.

The assumptions for all three linear regression tests were met. The Durbin Watson tests demonstrated independence of the residuals with all three tests values close to 2. The

assumption of linearity was met as all three scatter plots demonstrated a linear relationship between the predictor variable and the criterion variable. The assumption of heteroscedasticity for each of the three tests demonstrated a lack of residual spreading on the plot of standardized residuals versus that of the regression standardized predicted values, thus the assumption was met. The assumption of normality of the residuals was met as the residual data points aligned with the diagonal line on the normal p-plot of standardized residuals.

The Results of Fluency and Achievement Percentage Linear Regression Test

In order to determine whether the frequency of fluency instruction occurring within the Indiana classrooms could explain a significant amount of variance in the achievement percentage within the school, a linear regression test was utilized. As mentioned above, the assumptions for this test were all met. The model summary statistics found in Table 20 demonstrates a small to medium relationship with a correlation coefficient equal to .156. Within the achievement percentage score, 2.4% of the variance was explained by the fluency composite score. This number was reduced by .004 when sample size was factored into the calculation. The average residual distance found within the model was 12.19.

Table 20

Model Summary Statistics for Criterion Variable and Predictor Variable (Fluency)

Criterion Variable	R	R^2	Adj. R^2	Shrinkage	Standard Error of the Estimate
Achievement Percentage	.156	.024	.020	.004	12.19

There was a significant linear relationship between fluency composite score and the achievement percentage score, $F(1, 231) = 5.732$, $p = .017$. Through examination of the

unstandardized partial regression coefficient, the predicted value for a school with a fluency composite score of zero would be 71.21. For every one unit of increase in the fluency composite score the predicted value of the achievement percentage will decrease by .807.

The Results of Comprehension and Achievement Percentage Linear Regression Test

In order to determine whether the frequency of comprehension instruction occurring within the Indiana classrooms could explain a significant amount of variance in the achievement percentage within the school, a linear regression test was utilized. As mentioned above, the assumptions for this test were all met. The model summary statistics demonstrated a small relationship with a correlation coefficient equal to .102. Within the achievement percentage score, 1% of the variance was explained by the comprehension composite score. This number was reduced by .004 when sample size was factored into the calculation. The average residual distance found within the model was 12.28.

There was not a significant linear relationship between comprehension composite score and the achievement percentage score, $F(1, 231) = 2.425$, $p = .021$. The level of comprehension strategies utilized within Indiana middle schools did not serve as a predictor for the ISTEP+ achievement pass rate for English/language arts.

The Results of Vocabulary and Achievement Percentage Linear Regression Test

In order to determine whether the frequency of vocabulary development instruction occurring within the Indiana classrooms could explain a significant amount of variance in the achievement percentage within the school, a linear regression test was utilized. As mentioned above, the assumptions for this test were all met. The model summary statistics demonstrated a small relationship with a correlation coefficient equal to .031. Within the achievement percentage score, .1% of the variance was explained by the vocabulary composite score. This

number was reduced by .001 when sample size was factored into the calculation. The average residual distance found within the model was 12.34.

There was not a significant linear relationship between vocabulary composite score and the achievement percentage score, $F(1, 231) = .224$, $p = .636$. The level of vocabulary strategies utilized within Indiana middle schools did not serve as a predictor for the ISTEP+ achievement pass rate for English/language arts.

Summary of Key Findings

Based on the data it was determined that in middle schools in Indiana,

- the reported implementation of research-based fluency strategies was significantly higher for low-achieving schools compared to high-achieving schools among the low-poverty schools in the study,
- the reported implementation of research-based fluency strategies was not significantly different for low-achieving schools and high-achieving schools among the high-poverty schools in the study,
- the reported implementation of research-based comprehension strategies was significantly higher for low-achieving schools compared to high-achieving schools among the low-poverty schools in the study,
- the reported implementation of research-based comprehension strategies was not significantly different for low-achieving schools compared to high-achieving schools among the high-poverty schools in this study,
- the reported implementation of research-based vocabulary strategies was not significantly different for low-achieving schools and high-achieving schools among the low-poverty schools in this study,

- the reported implementation of research-based vocabulary strategies was not significantly different for low-achieving schools and the high-achieving schools among the high-poverty schools in this study,
- it is predicted that the English/language arts ISTEP+ pass rate will decrease by .509 for every one percentage increase in the free and reduced lunch percentage while holding all other variables constant, and
- follow-up linear regression tests indicated fluency was a significant predictor for achievement percentage. The predicted value of the achievement percentage is expected to decrease by .807 for a one unit increase in fluency implementation.

CHAPTER 5

SUMMARY, RESULTS, IMPLICATIONS, AND RECOMMENDATIONS

The final chapter of this study is organized into the following sections: summary, results, implications, and recommendations. The summary of the study is a basic review of the overall purpose. Next, the results section provides a summary of the data presented in Chapter 4. The implications and suggestions section of the study review the results and make connections to literature review. Finally, the recommendations section provides suggestions for further study that might enrich the study.

Summary of Study

The purpose of this study was to determine if the frequency in which middle school teachers implement research-based literacy strategies had any impact on student performance on the English/language arts portion of the ISTEP+. The specific teachers in question were those teaching English/language arts, science, social studies, or a combination. The study also explored whether teachers who possessed a reading specialist degree implemented literacy strategies more frequently than those who did not possess a reading specialist degree. I also explored whether SES served as a predictor for success on the assessment. The following questions were answered:

1. Is there a significant difference on the implementation of research-based fluency strategies based on school performance level while holding SES levels constant?

2. Is there a significant difference on the implementation of research-based comprehension strategies based on school performance level while holding SES levels constant?
3. Is there a significant difference on the implementation of research-based vocabulary development strategies based on school performance level while holding SES levels constant?
4. Does SES level, fluency instruction, comprehension instruction, and vocabulary instruction serve as predictors of language arts performance level?

Results of the Study

In this study, 233 middle school teachers in Indiana completed the survey on the frequency of implementation of research-based literacy strategies in the areas of fluency, comprehension, and vocabulary. Of the participants, 86 were teachers of English or language arts, 68 were teachers of science, 46 were teachers of social studies, and 33 were teachers of a combination of English, language arts, science, and social studies. From the survey, data were collected and statistical analyses were conducted to determine if a relationship existed in the frequency of implementation of literacy strategies, and to determine if SES served as a predictor of success on the English/language arts portion of the ISTEP+. Chapter 4 presented the research findings of the study.

Of those teachers surveyed, teachers in low-achieving, low-poverty schools reported using research-based fluency strategies more often than those of high-achieving, low-poverty schools. The reported implementation of research-based fluency strategies was not significantly different for low-achieving schools compared to high-achieving schools among the high-poverty schools.

Statistical significance was found with the reported implementation of research-based comprehension strategies for low-achieving schools compared to high-achieving schools among the low-poverty schools in this study. Teachers surveyed in low-achieving schools reported using comprehension strategies more often than those in high-achieving schools among the low-poverty schools in the study. The reported implementation of research-based comprehension strategies was not significant for low-achieving schools compared high-achieving schools among the high-poverty schools.

The reported implementation of research-based vocabulary strategies was not significant for low-achieving schools compared to high-achieving schools among the low-poverty schools in this study. Likewise, the reported implementation of research-based vocabulary strategies was not significant among low-achieving schools compared to high-achieving schools among high-poverty schools in this study.

Furthermore, a multiple regression was performed to determine if SES, fluency instruction, comprehension instruction, and vocabulary instruction serves as predictors to performance on the English/language arts portion of ISTEP+. Statistical significance was not found regarding fluency instruction, comprehension instruction, and vocabulary instruction but it was predicted that the English/language arts ISTEP+ pass rate would decrease by .509 for every one percentage increase in the free and reduced lunch percentage while holding all other variables constant. Because SES was such a strong predictor of success, I felt it was necessary to conduct follow-up linear regression tests. The follow-up linear regression tests did reveal that fluency was a significant predictor of achievement percentage while the other two literacy variables were not significant. The predicted value for the achievement percentage was expected to decrease by .807 for every one unit increase in fluency implementation.

Implications and Suggestions

Creating an effective culture of literacy in a middle school takes time and effort from administrators and teachers. It is important for leaders to examine their current situation and identify areas of strength and weakness. Once these areas are identified, it is vital to begin developing a plan to increase the overall effectiveness of the current classroom instruction. It is no secret that in recent years, policymakers and high profile literacy movements have focused mainly on *reading by nine*. The idea behind reading by age nine or third grade (all students pass or they will be retained) is to ensure students complete third-grade reading on grade level. The IREAD-3 assessment is used to measure foundational reading standards and skills through the third grade. It is a summative assessment that was developed in accordance with House Enrolled Act 1367 (also known as Public Law 109) in 2010. The emphasis is on providing students literacy instruction and experience so they develop strong literacy skills in the early grades. This would ultimately lead to a smooth transition into middle school. What research is finding, however, is that students are preforming well in literacy in fourth grade, perhaps from all of the emphasis in Grade 3, but falling flat in middle school. It is important to keep in mind that students now entering Grade 6 in Indiana will be the first middle school group to have taken IREAD-3 and held accountable for passing the assessment.

The research finding in this study suggests that schools that are low-achieving and low-poverty are implementing more fluency strategies than those that are high-achieving and low-poverty. Why do low-achieving schools implement fluency strategies more frequently? One conclusion that is derived from the results and research in the study is that low-achieving schools have more struggling readers which is forcing them to work with fluency development more frequently. Whereas in high-achieving, low-poverty schools, the students do not require the

extra support because they enter middle school already adept with the strategies necessary to read fluently and comprehend grade level text. There was not a significant difference in the implementation in low-achieving schools and high-achieving schools among high-poverty. I backed this with support from the research in Chapter 2 regarding high-poverty and struggling readers when I stated that a significant achievement gap exists between certain demographic groups according to NASSP data (NASSP, 2005, p. 12) . The data found in this study supports that research. Students in high-poverty schools require more foundational skills when entering middle school. Therefore, the frequency of implementation of strategies was not significantly different among the low-achieving and high-achieving, high-poverty schools. In high-poverty schools, every teacher in every subject implements strategies more frequently per quarter.

Fluency Instruction

When, if ever, is it appropriate or necessary for teachers to stop focusing on fluency instruction? Does it ever stop? Fluency strategies help students to read aloud, with expression so that the text flows rather than sounding choppy. Fluency is often neglected in the classroom regardless of its importance as a component of literacy. If text is read in a laborious and inefficient manner, it is difficult for the student to remember what has been read and relate the ideas expressed in the text to his or her background knowledge (National Institute of Child Health and Human Development, 2000b). Of the teachers surveyed in this study, 36% of English/language arts teachers, 72.1% of science teachers, and 58.7% of social studies teachers reported that they never met with small groups of students to evaluate fluency and provide feedback. How do they assess fluency if they do not hear the student read? The teachers in the survey are more likely to model fluent reading by reading an article or story to the class, or to ensure students are choosing to read books at their instructional level. This once again raised an

interesting question, how do teachers know the students' instructional level if they are not listening to the student read and assess their fluency and comprehension? In fact, of the teachers surveyed, 46.5% of English/language arts teachers, 47.1% of science teachers, 28.3% of social studies teachers, and 45.5% of a combination of teachers reported that they ensured that students are exposed to text on their instructional level 10 or more times per quarter.

Middle school social studies and science text books are written for middle school-level readers. Students that are not reading fluently by Grade 6 could potentially find the middle school level text difficult to comprehend and gather information. Fountas and Pinnell (2009) cited disfluency as one of the most salient characteristics of a struggling reader; without fluency, comprehension and vocabulary development are nearly nonexistent. Fluency instruction is not mentioned in the Indiana 6-12 Literacy Framework (IDOE, 2011) and fluency standards halt after Grade 5. In this study, specific questions such as—How many times per quarter do you provide multiple opportunities for each student to read orally? How many times per quarter do you model fluency through read alouds, or emphasize appropriate speed, accuracy, and expression? How often per quarter do you meet with small groups of students to evaluate fluency and provide feedback, allow students to engage in three or four re-readings of text, or ensure that texts used in class vary in topic, genre, and organization? All of these strategies could be incorporated into the daily instruction, however if they are not expectations or standards they could be superfluously neglected. Based on the findings from this study it is vital that teachers find the right balance. If they focus too much on any one component, they may neglect important standard based content.

The follow-up linear regression tests did reveal that fluency was a significant predictor of achievement percentage while the other two literacy variables were not significant. The

predicted value for the achievement percentage was expected to decrease by .807 for every one unit increase in fluency implementation. As mentioned in Chapter 2, phonemic awareness and phonics skills halt in primary grades (NASSP, 2005), students must have the ability to identify basic sight words and have a solid phonemic awareness in order to read fluently. Perhaps this instruction is halted earlier than needed for some students and therefore middle school teachers are forced to spend valuable instruction time on fluency strategies for students with little to no sight word recall or phonics skills.

It is possible that too much fluency instruction is harmful. Just as research in Chapter 2 suggests that too much testing is harmful to instruction and teacher efficacy, perhaps too much of a focus on one literacy component can also hamper achievement results (G.M. Jones et al. (2003). If teachers are focusing on fluency instruction at the rate of their responses in Chapter 4, other valuable instruction may be lost. The instruction is therefore not balanced; therefore, higher frequency of implementation equals lower achievement on standard based assessments.

Comprehension Instruction

This study focused on SES because according to research, the adolescent literacy crisis is not one that affects all schools equally. Young adults who are poor comprehenders are much more likely to be found in high-poverty, high minority schools than in other schools. In fact, it is not unusual for 70% of the eighth graders in high-poverty, high-minority middle schools to comprehend at below basic levels (MacIver et al., 2004). In this study, comprehension strategies were implemented more frequently in low-achieving, high-poverty schools. It is my belief that this is due to students of high-poverty entering middle school without adequate skills and strategies to comprehend middle school level text. Research substantiates this belief (MacIver et al., 2004). In the findings of this study, the strongest predictor of achievement was SES. It is

predicted that the English/language arts ISTEP+ pass rate will decrease by .509 for every one percentage increase in the free and reduced lunch percentage while holding all other variables constant.

The Common Core State Standards require that students work with increasingly complex texts in order to learn content from reading (D. Jones., 2013). Comprehension standards continue in the Indiana Academic College and Career Readiness Standards for Grades 6-12 (IDOE, 2011). Teachers are expected to build comprehension and appreciation of literature using knowledge of literary structure and point of view by analyzing, inferring, and drawing conclusions about literary elements, themes, and central ideas.

Vocabulary Instruction

The reported implementation of research-based vocabulary strategies was not significant among low-achieving schools compared to high-achieving schools among the low-poverty schools in this study. The reported implementation of research-based vocabulary strategies was not significant among low-achieving schools compared to high-achieving schools among the high the poverty schools in this study.

The current Indiana 6-12 Literacy Framework Standard 3.1 focuses on building rich vocabulary (IDOE, 2011). The standards make it clear that academic vocabulary and language are critical components of college and career readiness. Furthermore, vocabulary acquisition supports increased comprehension and develops a student's ability to communicate effectively in a variety of formats (D. Jones, 2013). In the survey, teachers were asked to respond to the following questions: How often per quarter are your students exposed to text on their instructional level, provide clear explanations with examples of word meanings, encourage use of student's personal examples of word meanings, make connections among word meanings

using semantic maps and word maps, or provide lists of words to be taught? How often per quarter are target words recognized, explained, explored, and used in texts? The study also asked teachers how many times they used context to make sense of an unknown word, or reviewed vocabulary words previously taught.

Based on the findings in this study, vocabulary instruction occurs consistently across the curriculum; reports of implementation were similar among English/language arts teachers, science teachers, and social studies teachers. This could be explained by the format of science and social studies textbooks. Most textbooks are set up with a specific focus on vocabulary. The Indiana 6-12 Literacy Framework places much emphasis on vocabulary instruction in the upper grades (IDOE, 2011). The framework states that there are three tiers of vocabulary that students need to learn in order to become effective disciplinary thinkers and communicators and to comprehend a variety of texts (D. Jones, 2013). Tier 1 includes common words students use daily, Tier 2 contains academic vocabulary that are high frequency words used across the curriculum, and Tier 3 contains content and context specific words that occur less frequently such as the vocabulary in a science or social studies textbook.

Most middle and high school teachers feel that they do not have time or the expertise to teach their students how to read. They were not trained to be reading specialists; therefore, teaching reading in a history class could seem daunting but necessary (Tovani, 2000). Of the 233 teachers surveyed, 30 reported that they currently possessed a certificate or degree in reading. For this particular study, there was no significant difference among the frequency of implementation of teachers that held a reading certificate compared to those who did not. Tovani (2000) stated that teachers at all levels felt that many resources exist that are focused on beginning reading and writing that provides an instructional paradigm effective for primary

grades, but when it comes to teaching literacy to upper grades, resources are scarce. Support must be provided to all teachers to help them find a balanced approach to literacy instruction.

Recommendations for Further Study

To further enhance the findings of this study, the following suggestions are recommended. First, a possible limitation to the study was the restriction to middle schools in Indiana. The study could be expanded to other schools across the United States. This would increase the sample size and determine if instruction differs in other states. Next, this study could be expanded with a qualitative case. It would be fascinating to interview respondents of this study to determine why they use certain strategies more often than others.

It would be determined if behaviors of students in middle school have an impact on the instruction. For example, MacIver et al. (2004) found that middle grades teachers were less likely than elementary teachers to trust students to work together productively, were very concerned about student misbehavior and maintaining control of their classrooms, and often provided their students with academic tasks that were less demanding cognitively. MacIver et al. (2004) also found that middle school teachers are still more likely than elementary teachers to doubt their personal teaching efficacy. This could explain why the majority of the teachers reported that they never met with students in small groups to evaluate fluency and provide feedback. Looking back at Chapter 2 research, the following information was provided regarding lack of time for literacy instruction in middle schools.

Although middle school teachers may assume they do not have the time to teach literacy skills, Tovani (2000) listed the following benefits of strategy instruction:

1. The entire class can work on the same strategy. More capable readers use more sophisticated text, while less able readers use simpler text. If teachers focus on what

good readers do, the entire class can improve their reading. It is not too late for struggling middle school students to be taught how to better comprehend what they read.

2. Strategies are applicable across the curriculum.
3. Teachers do not have to be reading specialists to teach comprehension strategies. They simply have to be aware of their own processes as readers. They can notice their own thinking as they read, determine what they do to make meaning, and pass these techniques n to their students. (p. 46)

In a qualitative follow up study, teachers could be asked to share what training, if any, they have had in the area of literacy instruction. They could share their understanding of what solid literacy instruction looks like and encompasses. Did their field experiences prepare them to teach intermediate reading skills, or did they assume students would enter middle school having already mastered intermediate skills? Is the middle school schedule set up to accommodate the time necessary to implement these strategies in the classrooms. Among the high-achieving schools in the study, what type of schedule did they maintain? Was the schedule different from that of the low-achieving schools? In elementary schools, teachers are required to provide a 90-minute, uninterrupted reading block. In middle schools across Indiana, class times vary. Would the teachers surveyed be more likely to implement some of the strategies more frequently if the students were in their classrooms for a longer amount of time?

In addition, how does this impact science, social studies, and math performance on the ISTEP+? This particular study only obtained English/language arts scores from the past three years. Further study could determine if there is any impact on scores in the above subject areas. How often do the schools surveyed provide professional development to staff in the area of

literacy? Is collaboration and data analysis a priority? It would also be interesting to determine if fluency strategies are being implemented more often in low-achieving, how poverty schools and they remain low-achieving because so much instruction time is consumed by fluency and basic skills.

Furthermore, were any of the teachers surveyed working in priority or focus schools? Currently, schools in Indiana that are priority or focus schools have specific school improvement plans in place to increase the quality of instruction and student performance. This could explain the significant difference in the frequency of fluency and comprehension strategies in low-achieving schools in the study. Are these schools currently on an improvement plan set by the state?

Last, this study could be enhanced by surveying fourth- and fifth-grade teachers from the feeder elementary schools in this study. How often do they implement the literacy strategies mentioned? How confident are they that their students are prepared for middle school? How confident are they that middle school English/language arts teachers, science, and social studies teachers are adequately trained to continue solid literacy instruction for all students?

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APPENDIX A: SURVEY

The Balanced Approach to Literacy Instruction in Middle Schools

- *If you are a teacher who did not teach at this school last year please close the survey now.*

1. Your current position is:

   (1) English or Language Arts Teacher

   (2) Science Teacher

   (3) Social Studies Teacher

   (4) Combination of the above subjects

2. How many years have you been in the field of education? _____

3. Your gender is:

   (1) Female

   (2) Male

4. Highest level of degree obtained:

   (1) Bachelor's

   (2) Master's

   (3) Ed.S.

   (4) Ph.D.

5. How many students are in your school building?

   (1) 1 to 200

   (2) 201-400

   (3) 401-600

   (4) 601-800

   (5) 801-1,000

   (6) 1,001+

6. What is the name of the school in which you are currently employed?

7. What is the name of the school district?

8. Do you currently possess a certificate or degree as a reading specialist?

   (1) Yes

   (2) No

9. Does your school have a literacy coach?

   (1) Yes

   (2) No

10. On average, how many hours a month do you devote to professional development in the area of literacy?

    Never 1 2 3 4 5 6 7 8 9 10+

11. On average, how many hours a month do you devote to collaboration with colleagues examining student data in the area of literacy?

Never 1 2 3 4 5 6 7 8 9 10+

The following questions pertain to instruction and strategies in fluency, comprehension, and vocabulary development. Please answer based on frequency of implementation per quarter.

12. On average how many times per quarter do you provide multiple opportunities for each student to read orally?

Never 1 2 3 4 5 6 7 8 9 10+

13. On average how many times per quarter do you model fluency through read alouds?

Never 1 2 3 4 5 6 7 8 9 10+

14. On average how often per quarter do you emphasize appropriate speed, accuracy, and expression?

Never 1 2 3 4 5 6 7 8 9 10+

15. On average how often per quarter do you meet with small groups of students to evaluate fluency and provide feedback?

Never 1 2 3 4 5 6 7 8 9 10+

16. On average how often per quarter do you allow students to engage in three or four re-readings of text?

Never 1 2 3 4 5 6 7 8 9 10+

17. How often per quarter do you ensure that texts used in class vary in topic, genre, and organization?

Never 1 2 3 4 5 6 7 8 9 10+

18. How often per quarter do you ensure that students are exposed to text on their instructional level?

Never 1 2 3 4 5 6 7 8 9 10+

19. How often per quarter does instruction include major strategies to promote comprehension such as summarization, student questioning, use of prior knowledge, metacognition/comprehension monitoring, graphic organizers, and visualization?

Never 1 2 3 4 5 6 7 8 9 10+

20. How often per quarter do you discuss prior knowledge with students before beginning a lesson?

Never 1 2 3 4 5 6 7 8 9 10+

21. How often per quarter do students turn and talk about the text read?

Never 1 2 3 4 5 6 7 8 9 10+

22. How often per quarter do you vary the size of strategy instructional groups to discuss books, focus on strategy use, or introduce more challenging texts to students?

Never 1 2 3 4 5 6 7 8 9 10+

23. On average how often do you spend instructional time helping students identify their reading miscues so they can learn to self-correct?

Never 1 2 3 4 5 6 7 8 9 10+

24. On average how often per quarter do you provide time for daily sustained silent reading with texts at your student's independent reading level?

Never 1 2 3 4 5 6 7 8 9 10+

25. How often per quarter do you emphasize both memory, the literal recall of information stated by authors and inferencing or interpretation- going beyond what the author is saying?

Never 1 2 3 4 5 6 7 8 9 10+

26. How often per quarter does instruction provide clear explanations, with examples of word meanings?

Never 1 2 3 4 5 6 7 8 9 10+

27. How often per quarter does instruction encourage use of student's personal examples of word meanings?

Never 1 2 3 4 5 6 7 8 9 10+

28. How often per quarter does instruction make connections among word meanings, using semantic maps and word maps?

Never 1 2 3 4 5 6 7 8 9 10+

29. How often per quarter does your program and instruction provide lists of words to be taught?

Never 1 2 3 4 5 6 7 8 9 10+

30. How often per quarter are target words recognized, explained, explored, and used in texts?

Never 1 2 3 4 5 6 7 8 9 10+

31. How often per quarter does instruction guide students to use context to make sense of an unknown word?

Never 1 2 3 4 5 6 7 8 9 10+

32. How often per quarter does your program review vocabulary words previously taught?

Never 1 2 3 4 5 6 7 8 9 10+

APPENDIX B: SURVEY LETTER

Dear Participants,

You were selected as a possible participant in this study because you are a middle school teacher in the state of Indiana. This survey is intended for teachers of English, Language Arts, Science, or Social Studies. For the purpose of the study, I ask that only teachers that have taught in the current building for more than one year participate.

There are no known risks to participating in this research study. There are no costs to you for participating in the study. The information you provide will be used to determine if the frequency of implementation of specific research-based strategies in fluency, vocabulary development, and comprehension have an impact on the proficiency of the English/Language Arts portion of the ISTEP+.

The questionnaire will take approximately 5 minutes to complete and the survey will remain open for one week following the date of this email. The information collected may not benefit you directly, but the information learned in this study should provide more general benefits. This survey is anonymous. Your IP address will not be collected however, absolute anonymity cannot be guaranteed over the Internet. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study. Please note that the name of the school in which you work will be collected in the survey but only for the purpose of matching data to the school. The names of the schools or districts will not be revealed in the final document. You are free to decline to answer any questions you do not wish to answer. Individuals from the Institutional Review Board may inspect these records. Should the data be published, no individual information will be disclosed.

Please click the following link to begin: https://www.surveymonkey.com/s/XD95JKH
If you have any questions about the study, please contact:

Tenicia Helmberger, 302 Edgewater Lane, Kokomo, Indiana 46902, (765) 454-7075, or by email thelmberger@kokomo.k12.in.us, or contact my dissertation chair, Dr. Terry McDaniel, Indiana State University, University Hall Room 211G Terre Haute, In 47809 812-237-3862 tmcdaniel@indstate.edu