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Effective Practices For Student Success In Algebra

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EFFECTIVE LITERACY INSTRUCTION ACROSS THE CURRICULUM AT THE SECONDARY LEVEL IN INDIANA

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ABSTRACT

The purpose of this study was to discover school- teacher- and student-level factors that describe effective literacy instruction at the secondary level of high-performing schools. A sub-question of the study focused on whether high-performing schools practiced "literacy across the curriculum." National data suggest only about one-third of secondary-level students in the United States read at a proficient level. A recent trend to improve secondary-level student literacy has been to emphasize literacy development in all content areas. A mixed-method approach was used for this study. A linear regression was executed for all middle and high schools in Indiana for spring 2011, 2012, and 2013 state language arts testing results. This was used to build a predicted language arts scale score based on free and reduced lunch status for all schools. Four schools (two middle schools and two high schools) with three consecutive years of posted language arts testing results above their predicted scores were selected for a qualitative multiple case study. Teachers and administrators were interviewed and surveyed regarding their school literacy practices. This study discovered common themes regarding the literacy practices of all four high-performing schools, which included (a) high levels of teacher collaboration among the language arts teachers, (b) the incorporation of high interest reading materials while working with students on their reading comprehension skills, (c) strong levels of teacher commitment and personal responsibility among the language arts teachers to see student literacy improve, and (d) a lack of a common instructional method to improve student literacy, and none of the four schools in the study presented evidence of a developed across-the-curriculum culture

for literacy development. Based on the findings, this study determined that matters of professional teaching culture such as collaboration and personal commitment may be stronger factors in student literacy development than a particular instructional approach. School leaders are reminded that the language arts teachers of a school lay the foundation of effective student literacy development. Before school leaders embark on adopting any across the curriculum approach to literacy development, it is needed to first focus on the professional functioning of the language arts staff in a school, particularly in matters of culture such as collaboration, commitment, and an interest in sharing the challenge of improving student literacy with other colleagues. Finally, each high-performing school's language arts staff demonstrated that one particular best-practice approach to student literacy development does not work for all. It is more critical for language arts teachers to be well-versed in a variety of best practice approaches to student literacy development, and work collaboratively with teaching colleagues to employ the best-practice approaches our students need at that time to improve their reading and writing skills.

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CHAPTER 1

INTRODUCTION

A variety of developments in our national landscape and educational system has led to considerable research and attention to what constitutes effective literacy instruction. First, a common understanding of literacy instruction needs to be established. A review of the literature concerning effective literacy instruction showed that the terms reading, writing, and literacy are frequently interchangeable (Heller & Greenleaf, 2007). However, often the term literacy is used to illustrate wider ideas—ideas that include speaking, reading, thinking, listening, metacognition, and writing (Kamil, 2003). Effective literacy instruction molds students who can phonetically decode words, fluently read text, comprehend the content and themes of what was read, and communicate in a variety of ways about the core concepts in the reading (Adams, 1990; Chall, 1967). Traditionally, the focus of literacy instruction has been to take previous learning or past experiences and mold this with new learning gained through reading (Adams, 1990). Researchers have tried to identify reliable methods that can be applied in a variety of contexts to improve literacy instruction.

Literature on the subject of effective literacy instruction revealed two accepted beliefs. First, not all programs and approaches to literacy instruction have the same effect in every situation. Skill development is needed for a wide range of skills in literacy instruction including phonetic awareness, vocabulary, word attack skills, and identifying main idea (Bond & Dykstra,

1967/1997). The second accepted belief is that literacy instruction is the foundation of the elementary school curriculum (Heller & Greenleaf, 2007). Heller and Greenleaf (2007) stated,

> For young children, few things could be more important than to develop the reading and writing skills they will need in order to succeed in later years of school and eventually, at college and work and in other parts of adult life. Much as every house requires a strong foundation, all students should be grounded firmly in the fundamentals of literacy. (p. 2)

The United States has made a great commitment to literacy instruction at the elementary level. Most attention and dollars from the federal government has gone to early reading instruction (Biancarosa & Snow, 2004). Funds to support this effort have gone toward supporting university research, local curriculum development projects in early literacy, statewide reform initiatives, and billion-dollar federal programs such as Reading First (Heller & Greenleaf, 2007). Reading First, enacted by Congress in 2002, sought to award dollars to elementary-level reading initiatives that attempt to implement research-based instructional strategies at the elementary level (Stevens & Laliberte, 2012). Some data indicates this focus on literacy at the elementary level has begun to pay off. According to the National Assessment of Educational Progress (NAEP), the reading skills of America's fourth graders have increased by 10 percentage points from 1992 to 2012, with the largest gains made by low income and minority students (National Center for Education Statistics [NCES], 2013). This progress was argued by some to be the result of the monumental focus and resources placed on early literacy instruction such as Reading First (Heller & Greenleaf, 2007).

Traditionally, the secondary level placed emphasis on content delivery and knowledge of core content areas such as science, math, and literature (Anderson, Hiebert, Scott, & Wilkinson, 1985). NAEP data revealed that secondary level reading scores have not improved much from

1992 until just recently. In 2009, 2011, and 2013, NAEP eighth grade reading tests each posted a one percentage point increase for the first time. Grade 12 reading scores have not improved over this same time period, as the average reading score of a 17-year-old from 1971 to 2012 has not changed significantly (NCES, 2013). The beginning of the 21st century revealed concerns in secondary level reading, as two-thirds of Grade 8 and Grade 12 students read at less than a proficient level, and about half of those students scored below what the U.S. Department of Education (USDOE) set as a basic level of reading (Heller & Greenleaf, 2007). In 2005, 13.5 % of minorities in the United States at Grade 8 level read at or above proficient, and 39% of White students at the same grade were proficient (Perie, Grigg, & Donahue, 2005). More recently, over half of White students still read at basic or below basic levels as of the 2012 NAEP reading tests results, and nearly 80% of African-American and Hispanic students are reading at basic or below basic levels. Overall, 66% of students still read at only basic or below basic levels at Grade 8 (NCES, 2013). In most high-poverty urban high schools at the start of the 21st century, nearly half of incoming ninth graders read at a sixth-grade level (Balfanz, McPartland, & Shaw 2002). Recent data in one state showed this figure may not be improving, as only 26% of urban students in New York passed the state English exam with a score of 55% (Gulla, 2012). NAEP data as of the 2012 reading test showed gaps of over 20 percentage points between the 17-year-old reading scores of White students and minority students, though the gap has narrowed since 1971 (NCES, 2013). Finally, in 2012, the NCES cited that below grade level literacy was the number one risk factor for students dropping out of high school (Alliance for Excellent Education, 2012).

Angelis (2001), associate director of the Center on English Learning and Achievement, stated,

> In the rush to support reading achievement in the primary grades, we as a nation are in danger of abandoning a generation of children. These are the students in grades four and higher who need to learn and practice a whole set of complex reading, writing, and language skills so that they can handle the variety of texts they will encounter and produce as they go through school and beyond. (p. 48)

Schmoker (2011), a national literacy consultant, more recently made a similar argument calling for the need to incorporate content-embedded reading and writing development for secondary level students in all content areas by incorporation of more teacher modeling of strategies, incorporation of student opinion, and close reading of non-fiction texts.

Although the data revealed a growing deficit in the literacy learning of students beyond the early years of Grade 4, new developments have further intensified the need for deep commitment to literacy instruction at the secondary level. The first development is the changing national and world economy and the new emphasis on reading and writing proficiency to be successful in many occupations in today's technology and information driven economy (Bottoms, 2008). In the last 20 years, technology and information-centered economies have ensured that those who are most literate will be the most rewarded (Bottoms, 2008). Bottoms (2008) stated, "There are few jobs, and almost no high-paying ones, not requiring proficiency in reading for understanding and communicating clearly orally and in writing" (p. 2).

Barton argued that "the twenty-five fastest growing jobs today have substantially higher literacy requirements than jobs that are declining, with a net effect of raising average literacy requirements" (as cited in Bottoms, 2008, p. 2). An example of this can be seen with what is expected today from auto mechanics. They must comprehend advanced manufacturing manuals to repair computer-based vehicles. This has resulted in the need and reward for a workforce that

has high literacy proficiency levels (Bottoms, 2008). Barton (2006) reported that in some acquired levels of education, financial earnings increase with literacy competence. High school graduates without post-secondary education are finding it more difficult to qualify for high paying jobs. Failure rates on employer tests of literacy and math skills doubled from 19% to 38% in the late 1990s (Education Trust, 2001).

The need for a more literate workforce, combined with students graduating without the needed literacy skills for the technology- and-information driven jobs of today, is an issue of concern. According to Bottoms (2008), NAEP data revealed that 17-year-olds' performances on the reading exam declined in the past decade. At the same time, scores on the verbal portion of the SAT have been stagnant. The gains made in literacy at the elementary level are often lost by high school (Bottoms, 2008).

Two other developments have occurred recently impacting the need for literacy instruction at the secondary level. One is a response to the growing demand for a more literate society to compete in the global economy. The second is a need to reduce the gap in literacy skills found in high school graduates (Schmoker, 2011). These recent developments have led to the national Common Core Standards movement (CCSS), a state-led effort by the National Governors Association (NGA), which aims to implement a common curriculum in states throughout the nation in language arts and math. Forty-six of the 50 states have agreed to adopt CCSS beginning in the 2014-2015 school year and use college- and career-readiness measures such as the Partnership for Assessment of Readiness for College and Careers (PARCC) or the Smarter Balance assessment to measure student growth in the standards of this initiative ("In the States," 2012). Also, a common set of *literacy standards in technical subjects* has been developed. Consider the *Introduction of the Common Core Standards* which states,

> The grades 6-12 standards are divided into two sections, one for English/language arts and the other for history/social studies, science, and technical subjects. This division reflects the unique, time-honored place of English Language arts teachers in developing students' literacy skills while at the same time recognizing that teachers in other areas must have a role in this development as well. (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010, p. 1)

Regarding the CCSS movement, Gere, Lillge, Toth, and VanKooten (2011) stated,

> Regardless of what one thinks of them, the CCSS take a clear stand on behalf of reading and writing across the curriculum. The insistence on making reading and writing instruction a 'shared responsibility' within schools signals that teachers in multiple disciplines will be expected to help foster literacy development, and the CCSS benchmarks specify the expectations. (p. 15)

It is unclear whether or not CCSS will have a long lasting positive impact on the American public education system. But it is clear that CCSS aims to impact how literacy is taught and focused on at the secondary level. Gere et al. (2011) stated it in this way:

> This mandate could provide the foundation for creating a robust program of reading and writing in K-12 education. And in schools where ELA teachers have worked with colleagues to establish these programs, the CCSS may provide further support for their early efforts to build a school-wide culture of support of literacy. (p. 15)

Statement of the Problem

Research by the NAEP indicated that many children have difficulty achieving success in reading. In 2011, NAEP found that just above one-third of the fourth- and eighth-graders tested scored at or above the proficient reading level (NCES, 2013).

The problem is that too many of the nation's children do not learn to read at a proficient level, and the situation seems to stay the same or get worse as students advance to the secondary level (MacArthur, Konold, Glutting, & Alampresse, 2010). Research over the last 20 years revealed this concern. NAEP (2011) results from 2002-2011 showed that over this period only about a third of the country's students were proficient in reading in Grades 4 and 8, and only 3% of eighth graders and 5% of 12th graders read at an advanced level (Grigg, Donahue, & Dion, 2007; NCES, 2013; Perie et al., 2005). Research from the 1990s showed the same trend. According to the National Education Goals Panel (1995), 28% of eighth graders and 34% of 12th graders attained proficient reading levels at that time. More recent data showed the same trend. These percentages did not change significantly on NAEP reading tests as of 2012 (NCES, 2013). Also, NAEP scores showed achievement gaps in reading of over 20 points on average between White students and minority students, and between students in and out of poverty (NCES, 2013). Finally, the Program for International Student Assessment (PISA) demonstrated a learning gap in achievement for U.S. students in poverty. PISA results from 2009 showed U.S. schools with less than 10% poverty rank number one in reading, math, and science achievement when measured against other international schools with less than 10% poverty (NCES, 2013). However, U.S. schools with poverty rated above 50% ranked in the bottom of all students internationally (NCES, 2013).

According to the National Endowment of the Arts, only one-third of high school seniors read proficiently, over 50% of American teens read below grade level, and over one-third of these students drop out of school (MacArthur et al., 2010). Forty-percent of employers observed that high school graduates were deficient in reading comprehension, and one in five U.S. workers read at a lower skill level than what is required by their job (MacArthur et al., 2010).

Deschler, Hock, and Catts (2006) illustrated the following realities regarding the challenges of combining literacy with college readiness,

> A dual challenge exists for secondary teachers and administrators. Namely, raise standards so graduates of secondary schools are better able to compete in the world economy and close the achievement gap for growing numbers of struggling adolescent learners who do not possess sufficient literacy skills to respond to demanding course requirements. (p. 1)

A contributing factor to low literacy skills is the fact that reading is a declining activity in teens today, with less than one-third of 13-year-olds in America reading daily and 15- to 24-year-olds reading less than 10 minutes voluntarily per day (Stevens & Laliberte, 2012). A final factor contributing to the declining literacy proficiency in students as they reach the secondary level and beyond is the lack of preparedness or training secondary level teachers have and receive in literacy instruction (Bottoms, 2008). Most secondary level teachers do not receive specific literacy instruction training unless they are language arts teachers (National Institute for Literacy, 2008).

> Heller & Greenleaf (2007) argued that educators have drawn sharp distinctions between the teaching of basic skills and the teaching of academic content, with reading and writing assigned to the former. It has been argued students should master basics of literacy by fourth grade so that they can go on to learn secondary subject matter. (p. 16)

This highlights a fundamental problem in philosophy with asking secondary level teachers to incorporate literacy instruction in their work; they simply have not thought it was their responsibility. Heller and Greenleaf (2007) added the following to the acknowledgement of the problem,

> When education reformers call for more literacy instruction in the content areas, teachers may hear something else, namely the suggestion that they shoulder the burden for teaching skills that should have been taught once and for all in the elementary grades. "But I am not a reading teacher" is the standard reply, spoken with puzzlement and defensiveness. There is a clear lesson to be learned, that if greater numbers of teachers are to be persuaded to integrate literacy instruction into their content areas, it must be clear *which* aspects of literacy instruction we are asking these teachers to incorporate, and it is not the teachers job to teach basic reading skills such as decoding and fluency, that should be left to reading specialists hired by the district. (p. 16)

Purpose of the Study

The purpose of this study was to understand and discover school, teacher, and student-level factors that describe effective literacy instruction at the secondary level of high-performing schools with higher than predicted state testing scores in language arts. School systems must be ready to provide for the literacy development needs of their secondary level students given the trends discussed in the introduction. Professional development approaches, literacy strategies for secondary-level literacy instruction, and teacher attitudes in high-performing schools were studied to inform best practices in literacy at the secondary level. Finally, how these schools addressed student-level factors in literacy such as relevance, school climate, and student buy in were considered to inform how school systems might best approach and work with students when emphasizing literacy in all content areas. A conceptual framework, presented in Figure 1 provides a visual representation of the areas within literacy instruction this study explored.

Research Questions

1. What school factors and approaches are found and utilized in literacy instruction by secondary schools with higher than predicted state testing scores in language arts?

1a. What teacher practices and approaches are found and utilized in literacy instruction by secondary schools with higher than predicted state testing scores in language arts?

1b. How do secondary schools with higher than predicted state testing scores in language arts address student factors that contribute to positive student motivation and buy in for literacy instruction?

Conceptual Framework

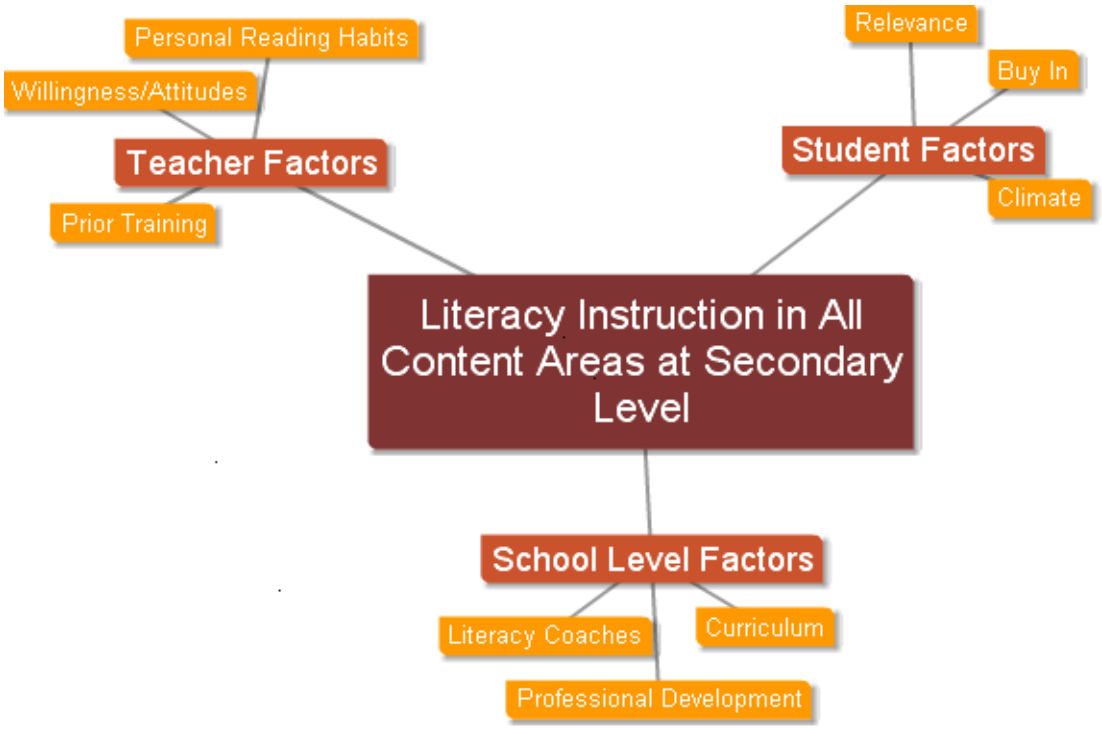

Figure 1. Conceptual framework of this study.

Personal Statement

The first bias that I brought to this study was that as a principal for nine years at the secondary level at three schools, I helped to implement a literacy initiative of some type (reading, writing, or both) at each school I was at. I needed to be open to the possibility that consistent themes in literacy approaches in high-performing secondary schools did not exist. I needed to remove myself from my past experiences implementing literacy initiatives and consider the approaches that are collected as a scientist to determine whether consistent approaches and themes in literacy instruction really do exist in high-performing secondary schools.

The second potential bias was that I was intrigued by Common Core curriculum and the possibility it might bring consistency in literacy instruction that could positively impact secondary-level literacy instruction in our nation. I needed to put this interest aside and study what was happening in schools with higher than predicted state testing scores in language arts with a neutral standing of a scientist.

Limitations

A limitation of this study was that schools with higher than predicted results on state testing in language arts might not be willing to allow study and exploration of their practices. A school could be motivated to hide or hold back their literacy practices due to fear of school competition in the voucher and open enrollment era. If schools were willing to participate in the study, a limitation could be the motives or bias behind question responses from participants. Another limitation could be that the practices and cultures of the schools identified related to literacy instruction could be so unique and specific to their context that findings were not considered for generalization to other school contexts.

Delimitations

A delimitation of this study was that only secondary level schools in Indiana were considered for this study. Further, only schools with higher than predicted results in language arts test scores (ISTEP for middle school or ECA for high school) were invited to participate.

Significance of the Study

Research previously cited indicated that gaps in student learning of literacy instruction at the elementary level could be bridged through a multitude of instructional approaches and supports for students. However, research previously cited also indicated these gains in student literacy rates were lost once the student reached the secondary level. This study collected the practices and approaches of secondary schools related to literacy instruction that were high performing on state exams in language arts. The identification of these factors at unique, high-performing schools in language arts state testing exams could inform central office administrators and building principals in programming, logistical, and design decisions that may put secondary-level schools in the best position to incorporate meaningful literacy initiatives in their schools.

Definitions

Literacy instruction is the emphasis on reading comprehension, writing, vocabulary, speaking, and listening skills within the already established content of a subject area (Heller & Greenleaf, 2007).

Proficiency is reading above a basic grade level on standardized assessments.

Common Core State Standards (CCSS) is a national movement led by the National Governors Association, committed to by 46 states, through which common standards will be taught to students. Literacy standards have been developed for Grades 6-12 for all content areas.

Indiana State Testing of Educational Progress (ISTEP) is a statewide exam given to Grades 7 and 8, as defined in this study.

End of Course Exam (ECA) is an exam given to Grade-10 students in language arts.

Middle school is any school in the study with a Grade 7 and/or Grade 8 in the school.

High school is any school in the study with Grade 10 through Grade 12.

National Assessment of Educational Progress (NAEP) tests students in Grades 4 and Grade 8 on reading and math proficiency; results are compared to other nations.

Reading and Writing Across the Curriculum (RAWAC) is associated with focused points of emphasis on reading and writing development in strategic ways in classrooms beyond language arts, such as mathematics or science.

State test scores in language arts are for middle schools with Grade 7 and Grade 8. For a high school with at least Grade 10, this is ECA.

Secondary school is either a middle school with Grade 7 and Grade 8 or a high school with Grade 10.

Summary

This study explored research on all school-level, teacher-level, and student-level factors that contribute to literacy instruction at the secondary level. A literature review follows in Chapter 2. Chapter 3 describes a mixed-method approach to research methodology for this study. Chapter 4 reports the findings of the study. Chapter 5 considers the implications of what was found in this study and offers recommendations for further research on the topic.

CHAPTER 2

REVIEW OF THE LITERATURE

The beginnings of literacy in the United States are found by looking at religious and political history. Reading rates among the American colonies improved due to the influence of religious groups, such as the Puritans, who placed emphasis on private reading for religious growth and understanding (Kaestle, 1985). Colonial governments in the seventeenth and eighteenth centuries made literacy a requirement for civil rights such as voting rights. Local district schools were established throughout New England at this time which led to an advancement of literacy in the colonies (Kaestle, 1985). Historical literacy rates can be difficult to gauge, however, due to a lack of evidence and accurate records (Kaestle, 1985). For example, U.S. census agents asked citizens throughout the nineteenth century if they could read, but this was not tested, as individuals simply stated verbally if they could read or write (Kaestle, 1985). During and following the Industrial Revolution, literacy generally increased as reading became a popular leisure activity in the United States and Europe as mass paper production lowered the price of books and education became more common (Kaestle, 1985).

Colonial times of the 1600s through the mid-1800s held one dominant thought about how children were to learn to read: “by teaching them to break complex alphabetic code through many exercises with letters and sounds (known as decoding), and giving children lots of things to read” (“Fundamental Importance of Literacy,” 2011, p. 4). Around 1850, the argument emerged

that breaking down the English language into sound-symbol relationships was too complicated to ask children to do ("Fundamental Importance of Literacy," 2011). In the mid-1800s, the secretary of the Massachusetts Board of Education, Horace Mann, suggested that teachers should help students learn to read by identifying whole words all at once from memory, as opposed to requiring students to sometimes use the difficult process of sounding out all letters ("Fundamental Importance of Literacy," 2011).

Over the next century, many students learned to read from readers such as Dick and Jane, which had words students had memorized all ready ("Fundamental Importance of Literacy," 2011). Students were then taught to use context clues or pictures to determine meaning of new words. This approach emphasized students to read complete words from memory and to use clues to figure out the meaning of new words. This approach became known as the whole language approach to reading instruction (Adams, 1990).

In the mid-twentieth century, a debate was fueled by reading specialist Rudolph Flesch when he argued that reading words through the patterns of sounds and letters, or phonics, was the only fundamental way to learn to read. Flesch's work was followed by many schools leading to a national debate over phonetic or whole language reading instruction (Adams, 1990).

This national debate occurred throughout the United States from the 1960s to the early 1990s as the viewpoints of phonetic and whole language both dominated the landscape of literacy instruction from a reading standpoint. This time period was polarizing enough that at times some reading experts called it the "Reading Wars" (Reyhner, 2008).

Approaches

Historically, it was an accepted belief that literacy instruction was the foundation of the elementary school curriculum (Heller & Greenleaf, 2007). For young students, nothing else can

be more important than the development of the reading and writing skills they will need in order to be successful in other subjects and in later years of school (Heller & Greenleaf, 2007). This belief largely was centered on a fragmented approach with students learning to read as the base. Writing and any other literacy related issues such as vocabulary or speaking was viewed and planned for separately (Herber, 1978).

In the 1990s, a concept emerged in which experts argued that both phonetic and whole language instructional viewpoints have a place in literacy and reading development. A report from the National Research Council made the following argument:

> Children master the important skills, strategies, and knowledge they need to become successful readers and writers most quickly and effectively if their teachers integrate both systematic instruction in letter-sound relationships and critical thinking about literature and language in their literacy focus. This multi-faceted approach is often referred to as "balanced literacy instruction." (Snow, Burns, & Griffin, 1998, p. 5)

This balanced literacy approach to literacy instruction gained traction in the 1990s as it was acknowledged both decoding and language based reading and comprehension skills could work together to develop literacy in students.

Another approach that emerged in the 1970s has converged with the balanced literacy thought of more recent times. It was previously mentioned that literacy instruction was largely found at the elementary level in reading specific times and courses (Heller & Greenleaf, 2007). Early research by Herber (1978) presented that literacy skills should be developed in all subject areas at all grade levels. More recent work has built on the research of Herber. Rycik argued the following:

> Skills such as vocabulary and comprehension transcend grade levels and subjects. It is becoming more necessary to ensure that literacy instruction does not end with elementary instruction; but rather becomes an integral component of content area instruction at all grade levels, especially as the need to apply literacy skills within content areas increases. (as cited in Misulis, 2009, pp. 10-11)

A review of the more recent literature on literacy instruction reveals that this term has meant a variety of concepts over time, including not only reading and writing, but speaking, thinking, listening, meta-cognition, and vocabulary development (Heller & Greenleaf, 2007). Literature reveals that literacy instruction has most often been associated with reading development, and more recently in all subject areas. Horning (2007) addressed this understanding this way:

> Literacy should mean that readers come to understand the reading process in ways that improve their reading activity. This makes clear that the reading process must be taught with an understanding that reading is applicable in all subject areas and should not be relegated to textbooks only. It is imperative to understand what it means to read—that the reader must construct meaning from text, understand the foundations of literacy instruction (phonics, phonemic awareness, fluency, vocabulary, and comprehension) and understand how these influence reading at all levels. (p. 4)

Literacy instruction has also been associated with writing development and the ability to communicate contextual understanding in written form. It is believed that helping students demonstrate their learning from reading through written form can positively impact the learning process (Schmoker, 2011). Misulis (2009) stated, “These written forms or products can take on a

variety of forms, from longer essays or research papers to shorter forms such as journals, writing lists or steps, or summarizing notes for a content area" (p. 17).

Other definitions of literacy instruction also reveal a more all-inclusive thinking on the subject. Beginning at the K-5 level, the National Reading Panel identified phonemic awareness, decoding, fluency, vocabulary, and comprehension as the five fundamental areas in elementary reading development (McPeak & Trygg, 2007). The Stupski Foundation, in its attempt to impact literacy instruction at the secondary level, built on the catch-all definition of literacy instruction set by the National Reading Panel by setting the following major areas of emphasis for reading at the secondary level as a part of literacy development:

- expanded sight vocabulary to unfamiliar words in increasing challenging text,
- expanded vocabulary development to thousands of unfamiliar terms in increasingly challenging text,
- detailed knowledge of text structures and genres,
- acquisition of expanded content knowledge in many domains,
- increased thinking and reasoning development, and
- increased need to build relevant connections regarding reading as a vital skill for current and future opportunities in learning and adult life. (McPeak & Trygg, 2007, p. 4)

The Stupski Foundation then called for these goals to be achieved through the consistent implementation at the secondary level of the following literacy approaches:

- explicit and systematic instruction to build vocabulary,
- instruction to enhance active use of efficient comprehension strategies,
- instruction and orchestrated practice to build reading fluency, and

- intensive instruction in basic word reading strategies, including phonics. (McPeak & Trygg, 2007, pp. 4-5)

Other definitions of literacy instruction considered it a given that reading and writing are focused on at all times, thus other literacy development areas should be the focus. Vocabulary is an area that has gotten considerable attention in literacy instruction. "The National Reading Panel confirmed the importance of vocabulary for comprehension and literacy learning" (Misulis, 2009, p. 13). The following is an argument made by Musulis (2009):

> Teachers can select vocabulary words that provide opportunities for students to review skills that will lead to learning acquisition such as context clues, structural analysis, and word structure skills. Vocabulary reinforcement activities can provide students opportunities to learn the meanings of words directly with subject area instruction, and therefore, in meaningful situations that develop usage, understanding, and in many cases higher-order thinking. (p. 13)

Comprehension has also been viewed as a key focus skill of literacy instruction. Ensuring students understand what they have read, and emphasizing this in all subject area instruction has been a part of literacy instruction (Schmoker, 2011). Helping students comprehend at various levels to guide their learning through a process that will lead to independent learning, has been a focus of literacy instruction (Bottoms, 2008). Students can gain skills such as acquiring information, making inferences, analyzing, synthesizing information, and evaluating what has been learned. Students can also learn to think beyond the information and ideas required to develop a larger understanding and context for current and future learning (McPeak & Trygg, 2007).

Literacy at the Secondary Level

Data revealed the need to focus on literacy at the secondary level. Many of the nation's children do not learn to read at a proficient level, and the situation seems to stay the same or get worse as students get to the secondary level. According to the U.S. Department of Education, 28% of eighth graders and 34% of 12th graders attain proficient reading levels (Heller & Greenleaf, 2007; Stevens & Laliberte, 2012). Also, the panel cited below grade-level literacy as the number one risk indicator for students' dropping out of school (Alliance for Excellent Education, 2012). NAEP also reported that reading scores at the secondary level had remained flat since the 1970s until a 1% increase in eighth-grade reading scores in 2009, 2011, and 2012 (Heller & Greenleaf, 2007; NCES, 2013), and fourth-grade reading scores posted higher gains over the same period of time (Bottoms & Fry, 2008; NCES, 2013). More recent NAEP data from 2009 and 2011 showed that only 38% of 12th graders performed at or above grade level in reading. Similar NAEP data regarding writing from 2007 showed similar concerns with only 24% of 12th graders showing proficiency in writing (Lesgold & Welch-Ross, 2012). According to the National Endowment of the Arts, only one-third of high school seniors read proficiently, and over 50% of American teens read below grade level, and of these students over one-third drop out of school (MacArthur et al., 2010) Finally, 40% of employers observed that high school graduates are deficient in reading comprehension. And, one in five U.S. workers read at a lower skill level than what is required by their job (MacArthur et al., 2010). Further, poor literacy is the number one risk factor for students dropping out of school. One-half of American adolescents that read below a basic reading level and one-third who read at a basic reading level drop out of high school, with only 70% of American students getting their high school diploma on time (Lesgold & Welch-Ross, 2012).

Three factors come together to cause what some literacy experts have called the great literacy deficit. These factors include the increasingly complex reading, writing, and thinking skills needed to be successful at the secondary level, increasing numbers of students who struggle to read and write at basic levels, including students speaking English as a second language, and few, if any, secondary level teachers receive training on how to teach and promote literacy within their content areas (Irvin, Meltzer, & Dukes, 2007).

Students identified with learning disabilities have become a common concern with literacy (Shaywitz, 2003). The most common learning disability is dyslexia, which affects approximately 12% of the school-aged population in the United States and 80% of students classified with a learning disability (Shaywitz & Shaywitz, 2005). Dyslexia affects a reader's ability to convert visual information into spoken, sounded out words in correct pronunciation. There is research demonstrating how the brain can be re-taught these connections through intensive phonetic instruction (Shaywitz, 2003).

Despite identification and intervention focus in schools at the elementary level for students with learning disabilities, improvements in reading levels with these students is not necessarily found in the data. According to Archer, Gleason, and Vachon (2003), 74% of students identified with reading disabilities in Grade 3 continue to have significant reading challenges in ninth grade.

Another factor to low literacy rates in the United States is the reality that reading is an activity in decline for American teens. Consider this data from National Endowment for the Arts (2007):

> Less than one-third of 13-year-olds in the U.S. read daily, and 15- to 24-year-olds spend 7-10 minutes a day reading voluntarily. When reading does occur, it often competes with

> other forms of media, which suggests less focused engagement in the text. Struggling readers are less often engaged in text because they are less motivated to read. (p. 10)

NAEP data from 2012 regarding the frequency 17-year-old students read for fun showed that almost 50% of students surveyed only read for fun a few times a year or not at all (NCES, 2013).

A third factor that added to the literacy challenge was the reality that secondary teachers receive limited training in adolescent literacy instruction. According to the National Institute for Literacy (2008),

> Secondary teachers are not expected to be trained in teaching literacy fundamentals skills. If content area teachers were familiar with some of the literacy strategies used by reading specialists or special education teachers, they could pre-teach difficult vocabulary and their class could decode difficult words together. Further, secondary teachers are often frustrated that remediation services are less available and less effective for their struggling adolescent students than they are for struggling young readers and that fewer resources are directed to secondary schools for literacy. Reading and literacy specialists, administrators, and teachers are all important resources to address struggling reader's needs. (p. 26)

Deschler et al. (2006) illustrated the realities that when combining the literacy statistics with college readiness, many high school students come to high school behind in their literacy development. High schools struggle to meet the needs of so many students behind in literacy development, and many graduate high school not prepared for college and end up in remediation courses.

Although the need for literacy instruction at the secondary level argument is based on recent data, this has not always translated to effective literacy practices that lead to improved

results. A theme of effective literacy instruction at the secondary level in research reveals a concern that literacy may occur fragmented and disconnected to content instruction. The perceived idea of literacy instruction as one more thing to do, disconnected to content instruction, can lead to learning that is even more fragmented and negatively impactful to student achievement (Alvermann, 2001). Some research suggested integrated, or embedded literacy instruction can have positive results in student achievement. A 2006 study on literacy in all subjects by McConachie et al. stated,

> The task of connecting reading and writing skills to the demands of subject area instruction is a challenge for school systems and teachers. A comprehensive understanding on literacy instruction that is embedded in content, with instructional strategies that are known to be effective can help teachers address literacy across all subjects and grade levels with positive results. (p. 8)

Literacy at the Secondary Level: Integration and Methodology

Reading, writing, and vocabulary have always been a part of the classroom curriculum and learning process at the secondary level, but largely for the purpose of developing understanding specific to the content of the subject, not necessarily as a way to develop literacy skills (Maxwell, 1996). Unfortunately, secondary schools have largely neglected literacy instruction in content areas (Irvin et al., 2007). As the data documenting the literacy concerns of middle school and high school students, schools began to attempt to incorporate more literacy initiatives in their programming. Early examples include many stand-alone attempts during which schools would create specific times, separate from content instruction, to work on reading or writing (Pilgreen, 2000). These examples often took place during homeroom or instructional resource times (Heller & Greenleaf, 2007). These attempts often left both students and teachers

disengaged with the process, particularly with writing during stand-alone times, as the activities had little connection to content students were learning. Also, teachers did not see the connection and often did not provide needed feedback on student writing (Heller & Greenleaf, 2007).

Writing has been used in subjects besides English class for years, but mainly for reports and informational writing (Maxwell, 1996). Most writing was done by the student to show what they had learned, not necessarily with a goal of developing writing improvement itself (Maxwell, 1996).

One stand-alone approach with reading that has seen some success is an approach known as *sustained silent reading* or SSR. This often included a set aside 20-30 minute time period, separated from content instructional time, during which students could read selections of their choice and interest, free of grading, that sometimes also included journal writing or peer discussions about what had been read (Marzano, 2003; Pilgreen, 2000).

SSR programs were first seen in schools after WWII as a time for students to practice skills learned in drill and skill techniques and isolated skill lessons (Jenkins, 1957). Later in the 20th century, SSR approaches were seen as a time to foster student motivation for reading and provide a place for meaningful interaction and connections with text (Pearson & Stephens, 1994).

Research has been presented that presents SSR or wide, free reading approaches can have a positive impact on student achievement, student motivation to read, and vocabulary development (Bottoms, 2008). According to Bottoms (2008), research indicated high school students who read five or more books outside of class on their own have achievement scores that average 12 points higher than high school students who had not read any books outside of class. The Middle Grades Assessment Network reported similar findings for middle-school students in

a similar study (Bottoms, 2008). The same results, in terms of improved achievement scores, were reported for secondary-level students who participated in weekly writing assignments in all classes in which they received consistent, weekly feedback on not only content but writing process improvement (Bottoms, 2008).

More recent approaches to literacy instruction at the secondary level have focused on integration of instruction in authentic reading, writing, and vocabulary development in all content areas that are embedded in the curriculum focus of each classroom (McPeak & Trygg, 2007). In fact, if teachers attempt to drill basic literacy skills outside of their regular content curriculum at the price of students' missing out on engaging writing, reading, and speaking about subject content, academic growth will not happen, and will even decrease (Allington, 2001).

Vocabulary development through an integrated approach has led to identified lists of key terms or words for students to be successful in specific academic content areas (Marzano, 2010). Marzano identified 2,391 words in 17-subject content areas that he argued students would have to know in order to be successful not only in a specific content area, but in general academically (Marzano, 2004). Marzano also called for direct instruction approaches by all content area teachers to help students master key content words. In Marzano and Pickering (2005), the following six step process for any teacher to use to teach vocabulary was prescribed:

1. The teacher provides a description, explanation, or example of the new term.
2. Students restate the explanation of the new term in their own words.
3. Students create a nonlinguistic representation of the term.
4. Students periodically engage in activities that help them add to their knowledge of the vocabulary term.
5. Periodically, students are asked to discuss terms with one another.

6. Periodically, students are involved in games that allow them to play with the terms. (p. 23)

Direct instruction such as this six-step process has been found in studies on vocabulary acquisition to improve academic achievement of students in general, and specifically for students that qualify for free and reduced lunch, and English as second language students (Gifford & Gore, 2008).

Approaches to embedding writing across the curriculum to ensure all content areas use their content to develop student writing skills have taken on various forms. One approach involved organizing types of writing into levels, with teacher professional development provided at each level (Maxwell, 1996). Level one involved most common types of student writing that are used daily but may not necessarily include feedback from teachers to students. Level one examples included notes from assigned reading, lecture notes, lists, free writes, journal writing, and all first drafts (Maxwell, 1996). Level two involved writing that was read and evaluated by the teacher, including exams, homework, summaries or learning, reaction papers, and essays (Maxwell, 1996). Level three involved writing that would be viewed by a formal audience such as business letters, writing in newspapers, essays to be read publicly, and final reports and/or projects (Maxwell, 1996). Teachers receive training how to emphasize foundation writing fundamentals at all three levels of writing, evaluate student work, and give constructive feedback (Maxwell, 1996).

Another approach to the usage of writing to both advance content learning and advance literacy development is found in the work of Schmoker. Schmoker (2011) advocated an integrated approach of using close reading of text, discussion, and writing about what is read to help teachers check the understanding of students' comprehension of content concepts. Usage of

debate and informed opinion in writing, based on factual citation and close reading of text was strongly advocated by Schmoker (2011),

> Once students have had the benefit of close reading, annotating, and partner-sharing, they will be eager to discuss and debate issues they find in their textbooks, historical documents, and editorials, or in print and on line publications, students might debate topics like healthcare legislation-good or bad policy? We greatly underestimate both the educational power and enjoyment students derive from such discussions or debates, if they are adequately prepared for them. (pp. 84-85)

Schmoker (2010) advocated teachers read the writing of their students to inform where they are at in the learning process, to inform instructional planning, and to guide future writing emphasis points with students to promote writing development. However, Schmoker also advocated not necessarily formally grading all students writing, but argued that teachers should work smart and be effective time managers in the their work with students' and their writing development, not allowing excessive grading to get in the way of having students write daily. Instead, students should be given exemplar writing samples to follow and discuss with each other, and at times get feedback on their writing from peers (Schmoker, 2010).

Reading across the curriculum at the secondary level has taken the form of emphasizing teacher implementation of embedding reading comprehension strategies while having students read content in their curriculum (Irvin et al., 2007). A first step in embedding reading comprehension strategies in content areas would be to train all teachers on simple, direct comprehension techniques, then have them model these strategies with students (Biancarosa & Snow, 2004). Examples of direct-reading comprehension strategies include using graphic organizers such as K (what the student knows), W (what the student wants to know), L (what the

student has learned), charts and concept maps to organize learning, pre-teaching main idea concepts, and key vocabulary by discussing needed background information prior to reading, teaching students to take notes in the margins of key themes as they read, and prediction/anticipation activities (Irvin et al., 2007). Teachers are also prepared to plan a wide, diverse selection of reading texts in their content area that will be high interest and appeal to a range of student interests. At times students should be asked what topics within a theme they would be interested in reading more about (Biancarosa & Snow, 2004). A healthy amount of writing in response to reading content text should also be included to help students keep a record of their learning and create a visual picture of what they have read (Graham & Perin, 2007). Often teachers do not assign struggling students while reading to write in response to text, but in fact, this is a strong strategy for students (Irvin et al., 2007).

The most recent development in the integration and methodology of literacy instruction in all content areas at the secondary level involved the concept of *digital and media literacy*, which came to mean to have the ability to read, write, decipher, evaluate, and critique information available through modern technologies (U.S. Digital Literacy, n.d.). More specifically, digital literacy has been defined as "the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers" (Gilster, 1997, p. 1). Media literacy has been defined as

> a framework to access, analyze, evaluate, create, and participate with messages in a variety of forms-from print to video to the internet. Media literacy builds an understanding of the role of media in society as well as essential skills of inquiry and self-expression necessary for citizens of a democracy. (Center for Media Literacy, 2011, para. 2)

School programming in some instances is working to train teachers to prepare students to be literate in the digital and media age. Steps include training teachers to provide a framework for students to decipher fact from opinion in digital resources and media after learning the difference between the two (Cheesman & De Pry, 2010). Teachers are being trained and encouraged to use digital and internet resources instead of print materials for reading of content. Finally, some schools are employing *Instructional Technologists* to facilitate digital and media instruction for all teachers and staff (U.S. Digital Literacy, n.d.).

Recent Legislation

A review of legislation, actions by the federal and state departments of education, and various commissions, national panels, and reading experts demonstrated a trend to attempt to bring emphasis, grant dollars, mandates, and curriculum changes to bring literacy instruction to the forefront of curriculum. Reading First, enacted by Congress in 2002, is an example (as cited in Stevens & Laliberte, 2012). Reading First legislation, passed in connection with President George W. Bush's No Child Left Behind Act, sought to award dollars to elementary-level reading initiatives that attempted to implement only research-based methodologies in early reading (as cited in Stevens & Laliberte, 2012). Emphasis was placed on funding approaches that incorporated direct instruction in "systemic and explicit instruction in phonological awareness, phonic decoding, vocabulary, reading fluency, and reading comprehension" (Krashen, 2009, para. 6).

A more recent federal bill, re-introduced in the U.S. Senate by Washington Senator Pat Murray (first introduced in 2009) in April 2013 sought to support literacy programs from birth through Grade 12. The LEARN Act, or Literacy Education for All, sought to support high literacy for all students from birth to high school through

- Authorizing $2.35 billion for comprehensive literacy programs, to support local school based literacy programs from birth to twelfth grade, through the use of state formula grants in a competitive sub-grant process;
- Enhancing states' capacity to improve literacy instruction through the continued support of state literacy leadership teams;
- Providing high quality, research based professional development opportunities for instructional staff and financial support for literacy coaches;
- Supporting promising and innovative practices to improve literacy and writing, especially for students reading and writing below grade level;
- Allocating not less than ten percent of the 2.35 billion for children birth to age five, and not less than forty percent for students in grades six through twelve;
- Require a rigorous national evaluation of the programs funded to include stringent conflict of interest restrictions for the programs peer review process; and
- Enhance each state's role in improving literacy instruction by supporting a comprehensive state literacy plan, target funding to schools with highest need based on poverty and achievement factors, and review literacy training requirements for state licensure and teacher certification. (Murray, 2013, para. 4)

This legislation was not without criticism, however. Strauss (2011) presented the following argument:

> The LEARN ACT combines three existing programs that have not succeeded: Reading First, Early Reading First Act, and Striving Readers aimed at adolescents. The LEARN ACT promotes the same methods as Reading First, the "systematic and explicit instruction in phonological awareness, phonic decoding, vocabulary, reading fluency, and

> reading comprehension." The LEARN ACT assumes direct instruction is the only way children become literate. It assumes there is no contrary view. There is good evidence, published in scientific journals and books, supporting another view. Direct teaching/skills approach is very limited. LEARN completely ignores the most important factor in developing literacy: Encouraging the development of an independent reading habit through literature study, reading time, and access to books. (p. 2)

A variety of states have placed heightened importance on literacy standards for either teachers, students, or both. In New Mexico, legislation was enacted in January 2012 to require all teachers to pass an exam to certify their knowledge and preparation to teach reading as a part of the state licensure process (Smith, 2012).

Many states enacted legislation tied to dollars and accountability policy since the passing of No Child Left Behind in 2002 to not only assist in literacy improvement based on state test results, but hold schools accountability that did not improve, keeping with the trend of increased accountability and negative consequences for lack of positive results. In 2008-2009, the state of Florida enacted legislation in line with No Child Left Behind accountability regulations, focusing on literacy through reading. Over 111 million dollars was set aside to go to low-achieving, high-poverty schools that were struggling in reading performance on state exams. These schools, rated low on the state accountability system, received dollars to enact research-based instructional reading methods, to be supported and led by nine state regional centers. Schools with low ratings that also received federal Title I dollars were required to accept funds, participate in regional training, and submit to accountability measures for not improving on future state tests. The state of Florida received a waiver from NCLB in part due to this action (Florida Department of Education, 2008).

The state of Indiana recently passed legislation intended to increase expectations for students reading proficiency by the end of Grade 3. The legislation sought to enact a specific assessment for reading ability at the end of third grade, along with a mandate of 90 minutes of reading instruction on a daily basis for all elementary students. The legislation further suggested that retention could be enacted *as a last resort* for students who did not pass the state reading test, known as IREAD 3. The Indiana Department of Education implemented the legislation and mandated that students who failed I READ 3 receive remediation and retake the test. A second failure, according the Indiana Department of Education, meant the student should be retained, despite the legislation not mandating this piece. Exceptions are allowed for special education and language minority students (Indiana Reading Evaluation and Determination (IREAD-3) Assessment, 2010, 2012).

School Factors in Student Learning

Schreerens and Bosker (1997) conducted a review of school-level factors that impacted student learning. This review was a quantitative analysis and ranking of eight of the most significant influences on student learning in schools (Scheerens & Bosker, 1997). The eight identified factors ranked in order of influence included time, monitoring, pressure to achieve, parental involvement, school climate, content coverage, school leadership, and cooperation (Scheerens & Bosker, 1997).

Marzano (2003) built upon the work of Scheerens and Bosker (1997) and condensed the list of the most significant school level influences on student learning. Marzano drew upon common themes from Scheerens and Bosker and other researchers' work to publish the five most influential school level factors on student learning. Marzano argued that the factors, in order of influence, are "guaranteed and viable curriculum, challenging goals and effective feedback,

parental and community involvement, safe and orderly environment, and collegiality and professionalism" (p. 15).

The concept that all students need an equal opportunity and time to learn the critical curriculum components to succeed academically was first presented in the 1970s (Marzano, 2003). The Second International Mathematics Study identified three types of curricula as it pertained to student learning—the intended curriculum, the implemented curriculum, and the attained curriculum. Brewer and Stacz stated intended curriculum is content specified for a specific grade and/or course by the state, school district, or local school. The implemented curriculum is content taught by the teacher, and the attained curriculum is what students actually learned (as cited in Marzano, 2003, p. 23).

Unfortunately, Herman, Kelin, and Abedi documented that a gap exists between what is intended to be learned for students and what is implemented and learned from one school to another, even within the same school district or system (as cited in Marzano, 2003, p. 23). Hirsch discussed that since there is not a national curriculum, it is assumed the matter of what to teach students is resolved at the local level. He documented that in many instances, this is a misleading myth (as cited in Marzano, 2003, p. 23).

The state standard movement of the 2000s was thought to bring clarity and consistency to what was taught at the state level. However, a review of state standards across the country finds that many standards have multiple sub skills students must know in order to master one standard (Schmoker, 2011). The numerous sub skills cause teachers to make decisions as to what to emphasize and for how long for student learning. In the process, students from one classroom to another focus on different learning skills, and in the process, do not always learn the same standards (Marzano, 2003). A key action step recommended by researchers is to identify and

communicate essential standards, or *power standards* that must be mastered by certain dates, despite varying sub skill preparation by students (Marzano, 2003). This concept has come to be called ensuring a *guaranteed and viable curriculum* for students (Marzano, 2003).

Challenging goals and effective feedback is another strong influence on student learning. In the 1970s it was argued that effective schools must challenge all students to be truly fulfill its mission (Edmonds, 1979). High expectations for all students, including special education and low socioeconomic backgrounds, are a foundation of effective schools research (Reynolds, Teddlie, Hopkins, & Stringfield, 2000). Reynolds et al. (2000) stated it this way:

> High expectations of students have been one of the most consistent findings in the literature. . . . Virtually every review of the topic mentions the importance of this factor; whether British, Dutch, or American. Teachers should communicate high expectations directly to students, and establish clear goals for all learners. (p. 148)

Bangert-Drowns, Kulik, Kulik, and Morgan argued consistent feedback from teacher to student, in a variety of forms at many times and intervals throughout a school year, is a key to checking on expectations to see if they are being met and what progress is being made (as cited in Marzano, 2003, p. 37). Traditionally educators have waited until the end of the learning process to provide feedback, known as *summative* assessment (Brookhart, 2013). However, it was found that a key component of improving student academic performance is to provide more consistent feedback during the learning process, at short checkpoints. This concept has come to be known as *formative* assessment (Brookhart, 2013).

Parental involvement and community partnerships are also key factors in positive effects for student learning (Marzano, 2003). It is often assumed that family socioeconomic status was the number one predictor of not only student academic success, but parental involvement. Some

research indicated that looking at family income alone does not tell the full story on predicting student academic performance (Marzano, 2003). Research argued that home environment that focused on education and made student performance a high priority, is a key factor in student academic performance and parent involvement. Positive home environment that supports student academic success can transcend family income status (White, 1982).

Schools that understand the importance of home environment and try to positively influence this through cultivating parent awareness, parent involvement, and parent/community partnerships are more likely to support student academic success (Marzano, 2003). Antunez argued one way to develop this is by focused communication to families as to the essential learning objectives of a school, combined with opportunities for families to respond and participate (as cited in Marzano, 2003, p. 50). Participation can and should take the form of support activities at home, as well as opportunities at the school to get involved through activities such as volunteering, event attendance, and providing avenues to offer feedback on programs/initiatives that will have direct impact on the academic performance of their children (Paulsen, 1994; Stallworth & Williams, 1982).

Safe and orderly environment has been a strong school-level factor in student learning (Marzano, 2003). Unfortunately, school shootings in the United States in this century, such as the Sandyhook, Connecticut, tragedy has made this factor an even more focused and intense part of what schools do to support students (Denisco, 2013). The need for schools to ensure this issue does not get in the way of student learning was illustrated in a 1997 study by Grogger. In this study, characteristics such as race, ethnicity, and socioeconomic status were controlled. With other factors held constant, students in schools with high levels of violence had lower math

scores by 0.20 of a standard deviation and were 5.7 percentage points less likely to graduate (Grogger, 1997).

The last school-level factor in the top five Marzano argued impacts student learning is collegiality and professionalism. Marzano (2003) described collegiality and professionalism as "the manner in which staff members in the school interact and the extent to which they approach their work as professionals" (p. 60). Marzano (2003) also argued that collegiality and professionalism incorporates organizational climate, and stated,

> Collegiality and professionalism accurately highlights aspects of previous treatments of climate that have strong statistical relationship with student achievement. That is, studies that have found a statistical relationship between school climate and student achievement have focused on collegiality and professionalism. (p. 61)

Fullan and Hargreaves argued collegiality is typically driven by culture, or written or unwritten norms in authentic interactions between teachers that are professional in nature (as cited in Marzano, 2003, p. 61). According to Fullan and Hargreaves, these interactions should include the sharing of mistakes, show professional respect to help each professional improve, and allow for the analysis and criticism of practices and procedures (as cited in Marzano, 2003, p. 61). One study conducted in 1994 argued that there was a positive correlation in student achievement when teachers discuss and seek advice from each other on professional learning, and a negative correlation on student achievement when teacher interactions are only friendly and social in nature (Friedkin & Slater, 1994).

Building a culture of strong collegiality and professionalism takes a strong support system (Hall & Hord, 2001). When staff engages in professional conversation with colleagues about student learning, consensus needs to be reached as to what instructional priorities should

be addressed. A school level leadership team, with deep engagement from the administration, must work to cultivate this consensus, create opportunities for teachers to learn more about these instructional priorities and strategies, and provide support and monitoring of progress in attempting new strategies with students. (Zmuda, Kuklis, & Kline, 2004).

Additional factors can come into play when discussing factors that impact student achievement. The impact of decisions made by an individual teacher can be even greater than the impact of decisions made at the school level (Marzano, 2003). Teachers who are effective and make the right decisions and show the needed traits to positively impact student achievement can impact students at any and all achievement levels (Wright, Horn, & Sanders, 1997).

School Factors in Literacy

The research of Biancarosa and Snow (2004) shared two critical factors for schools to consider at the secondary level when improving student literacy development—"infrastructure and instructional improvements" (p. 13). Instructional improvements refer to classroom teaching techniques to help develop literacy skills in the student, while infrastructure refers to school practices and management considerations such as meeting times and bell schedules. Biancarosa and Snow (2004) argued that

> Instructional improvements can have a tremendous impact, it is important to realize that they would be more effective if they were implemented in conjunction with infrastructure supports, and instructional improvements are unlikely to be maintained if infrastructural factors are not in place. (p. 13)

One needed infrastructure consideration for schools is extended and planned time for literacy instruction (Biancarosa & Snow, 2004). It is recommended students at the secondary level participate in two to four hours of literacy related learning each day. This time should be a

combination of literacy instruction from the language arts teachers and content learning that is also literacy based in science, social studies, and other subjects (Biancarosa & Snow, 2004). In order for this time to occur, teachers must understand they are not just teachers of content knowledge, but also play a role in facilitating literacy development (Bottoms, 2008).

Another critical infrastructure element for a secondary school to support literacy development is ongoing professional development. This work should be long term and occur weekly or at least monthly, and should involve not only teachers but also building level administrators, literacy coaches, and central office personnel (Irvin et al., 2007). Sessions should be built into the regular school schedule and be done in a way for teachers to be exposed to new concepts and strategies, be expected to implement and experiment strategies, then come back together with colleagues and coaches for quick follow up on successes, challenges, and questions for further development (Biancarosa & Snow, 2004).

Infrastructure should also include summative assessments of student progress that allow teachers to track student progress on reading and writing goals in a literacy initiative (Biancarosa & Snow, 2004). Data collected from student reading and writing pieces in any classroom can be used to evaluate initiative effectiveness, individual student progress, and plan where and how additional literacy interventions are needed (Schmoker, 2010). Finally, leadership from the building principal as an instructional leader is a must (Biancarosa & Snow, 2004). The principal's full engagement in the development of literacy infrastructure allows for key decisions about scheduling, organization, and personnel to be made for the betterment of literacy (Irvin et al., 2007).

Instructional improvements that should be planned at the secondary-school level, according to Biancarosa and Snow (2004), to support literacy development should include:

- Direct, explicit comprehension instruction that gives students clear strategies to assist in comprehending a wide range of texts through teacher modeling and instruction that gives additional support to struggling readers;
- Effective instructional principles embedded in the curriculum in which language arts teachers use content from other areas to teach literacy skills, and other subject teachers use their content to reinforce literacy skills from language arts classes;
- Motivation for students by allowing student choice in the reading materials and writing applications used to demonstrate literacy;
- Strategic tutoring for students who need additional time and one on one attention to improve and succeed;
- Diverse Texts and Collaborative Learning that uses many reading materials available at all reading levels, that students can read and share together through discussion and group format;
- Intensive writing that challenges students with clear expectations, with a technology component for reading and writing; and
- Ongoing formative assessment to monitor group and individual student progress. (pp. 12-20, 25)

Another infrastructure model that can support teacher capacity to implement literacy instruction in classrooms is the concept of a professional learning community (Eaker, DuFour, & DuFour, 2002). In a professional learning community, teachers overcome the isolation of their classroom to focus on literacy instruction as a group, meeting weekly to share new literacy strategies, review literacy goals, plan literacy lessons collaboratively, encourage each other to make literacy a priority, and collect and analyze data to assess the needs of individual students.

Teachers should also make the work of their students' public to increase visibility and accountability through a professional learning community (Eaker et al., 2002). School leadership plays a key role in creating and supporting time and support to enact professional learning communities as a way to support student literacy growth (Schmoker, 2011).

A final critical school factor in student literacy at the secondary level involves planning curriculum to ensure students are expected to read a variety of texts that are complex in nature (Heller & Greenleaf, 2007). The American College Testing study (ACT; 2005) presented reading of advanced primary source, subject-focused text that has high levels of text complexity, is the best available predictor of success in introductory college courses. Schools must carefully plan reading materials that address text complexity because it has been shown that the reading levels and vocabulary of texts have gone down since the 1960s (Williamson, 2004). Despite the decrease in text complexity of texts used in schools, the Lexile scores (a measure of text complexity that includes word difficulty and sentence length) of college texts have not decreased since the 1960s, and in fact, have increased (Stenner & Wright, 2004). Also, a 305 Lexile score level increase exists between texts used at the end of high school to beginning college level texts, which is more than the difference in the Lexile levels of texts between grades four and eight (Williamson, 2004).

Finally, a study conducted by the ACT (2006) service found that students' ability to infer, identify author's purpose or the main idea, or other reading comprehension skills traditionally focused on at the secondary level was not the strongest factor in students who scored in the highest percentiles on the ACT exam. Students who performed in the highest percentiles demonstrated an ability to decipher reading selections high in text complexity as measured by Lexile scores based on word difficulty and sentence length (ACT, 2006).

Teacher Factors in Student Learning

A variety of factors are under the responsibility and direction of the classroom teacher that impact student learning. One of the strongest factors is a teacher's ability to employ the best and most effective instructional strategies, or methods, to help students learn (Marzano, Pickering, & Pollock, 2001). A study by Marzano et al. in 2001 argued through quantitative analysis that identifying similarities and differences, along with summarizing and note taking are among the strongest of nine key instructional strategies that impact student learning in a positive way. In another quantitative analysis of the most effective instructional strategies, Hattie (1992) presented that tutoring, mastery learning activities, and meaningful homework have the strongest positive impact on student learning.

Teachers do not need to employ all of these strategies in every lesson (Marzano et al., 2001). The important piece for effect teachers to positively impact student learning is to employ the right instructional strategy for the student or class in the right situation. This has been argued to be similar to a master chess player who is capable of seeing many things simultaneously, and can employ the right judgment and strategy in the right situation with ease (Berliner, 1986).

Bloom (1976) argued that teachers need flexibility to employ researched-based instructional strategies to benefit student learning. Bloom introduced the idea of organizing mandatory curriculum into chunks, or *units* that would allow teachers flexibility to employ the best instructional strategies but not be hampered by day-to-day lesson design. In this way, teachers play a key role in designing units for student learning (Bloom, 1976).

Teachers are also in a key position to design lesson units and instructional strategies to put students in a position to master what they learn. Mastery learning is a term that has come to

be understood as students working with content in whatever approach and for however long is needed to truly master, or learn the content (Wong & Wong, 1998).

Teachers also have a critical role to motivate students and keep them involved in the instructional process to maximize student learning (Wise & Okey, 1983). One way to do this is to constantly keep student learning objectives and goals at the forefront, as a guide and motivator to everything that is done for student learning (Wise & Okey, 1983). This helps students understand *why* they are using certain instructional strategies and working through certain tasks, keeping the end goal in mind (Jacobs, 2010).

Ensuring students are doing the work and are actively involved in the learning process as opposed to passively listening to the teacher only talk about the content, is a vital factor (Schlechty, 1990). Wong and Wong (1998) made the following qualitative argument for actively involving students in the learning process to improve mastery:

> The next time you go into a restaurant, notice who is doing all the work. It is the cooks, bus people, and waitpersons, not the owner. The owner is sitting behind a cash register counting money. The next time you walk past a construction job, notice who is doing all the work. It is the workers, the construction crew, not the foreman. He is standing around with blueprints in one hand and gesturing order with the other. But walk into a school and notice who is working. Not the students. No, it is the teachers who are beating their buns off. Research says that the person who does the work is the only one doing the learning. (p. 206)

Teachers have a critical influence on the learning process by putting students in a situation in which they are doing the work that leads to long term retention and learning. Teachers build background knowledge and needed skills in students, then should create learning

experiences and activities that actively involve the learner (Schlechty, 1990). As this occurs, teachers should facilitate and guide the learning process for students. Schlechty (2002) called this "working on the work" (p. 22).

More recent research argues that teachers must connect the need to actively involve the learner with the technology trends of the 21st century. In July 2008, Google engineers announced that there were one trillion unique URLs, or web page addresses (Perez, 2008). Since the World Wide Web is able to connect together digital information and artifacts in more efficient and cost effective ways than ever before, old systems of creating order and learning are now out of date (Jacobs, 2010). Experts in particular fields or subjects were once the only way to categorize and organize information for knowledge consumption. Now this task is in the hand of any Internet user who wants to participate and help (Jacobs, 2010). Internet users can produce and organize information in a social format. A learning culture of participation means that learning takes on a more active role rather than the traditional passive role (Jacobs, 2010). Student performance does improve when technology platforms are used to ask students to produce authentic and performance-based work products and assessments (Stiggins, 2005).

Another key teacher-level factor in student performance is classroom management (Marzano, 2003). Marzano presented the following summary in support of classroom management as a key factor in student learning.

> After combining three comprehensive studies of content analysis from 86 chapters from annual reviews, 44 handbook chapters, 20 government and commissioned reports, and 11 journal articles they came up with 228 variables that affected student achievement. They asked 134 education experts to rate the impact of each variable. The experts concluded from this massive review that classroom management was rated first. This makes

> intuitive sense-a classroom that is chaotic as a result of poor management not only doesn't enhance achievement, it might even inhibit it. (Wang, Haertel, & Walberg, 1994, as cited in Marzano, 2003, p. 88)

A critical component to classroom management is establishing and enforcing rules and procedures (Emmer, Evertson, Sanford, Clements, & Worsham as cited in Marzano, 2003). A rule sets out general expectations, and a procedure communicates what is expected for definite and specific behavior (Wong & Wong, 1998). Each classroom might vary on rules and expectations, but it is recommended clear rules and procedures are established for: basic behavior, start and end of class, transitions, interruptions, supplies, classroom activities, and procedures for handling academic issues such as late work (Marzano, 2003).

In order to execute appropriate classroom rules and procedures to support student learning, research is clear the teacher must have an emotional withitness to when and how to best communicate with students (Kounin, 1983; Nelson, Martella, & Galand, 1998). Teachers who are able to enforce and execute rules and procedures with students while staying unemotional can maintain overall positive rapport with students, maintain student motivation, and at the same time deal with the immediate issue that is an obstacle to maximum student learning (Nelson et al., 1998).

A final teacher factor in student learning is curriculum design (Jacobs, 2010). Marzano (2003) defined curriculum design as "the sequencing and pacing of content along with the experiences students have with that content" (p. 106). Marzano (2003) further argued that while some larger themes of curriculum are going to be set at the state, district, or school level, "individual teachers still need to make decisions regarding curriculum design at the classroom level given the unique characteristics of their students" (p. 107).

More recently curriculum design, as defined by Marzano (2003) has also been used with the concept of differentiation. Differentiation has been used to describe teachers helping all students through curriculum goals, but through different pacing, different instructional activities, different content, or all of these, in order to help each student be most successful based on their current reading levels and background knowledge (Tomlinson, 1999). In many cases different instructional activities or reading materials, designed with the same learning goals in mind for all students, occur simultaneously in the classroom after careful teacher planning (Tomlinson, 1999).

Teachers play the key role in planning and leading students through complex and multiple learning experiences to help students construct new learning (Rovee-Collier, 1995). Nuthall proposed a minimum of three to four learning experiences are needed, with only a day or two days between experiences, for new learning to be brought into existing knowledge (as cited in Marzano, 2003, p. 112).

Teacher Factors in Literacy

The critical teacher factor in student literacy learning is fostering student motivation and engagement (Irvin et al., 2007). Kamil (2003) pointed out in his research that "motivation and engagement are critical for adolescent readers. If students are not motivated to read, research shows that they will simply not benefit from reading instruction" (p. 8). Adolescent readers will tackle developing their reading and writing skills if they have compelling and interesting reasons to do it (Schmoker, 2011).

Strategies that have been identified that teachers can employ to motivate students to develop their literacy skills include

- make connections to students' lives by using background knowledge, topics of interest, and current relevance to read and write about;
- facilitate and build safe classrooms in which students are valued, have a voice, are allowed to express it, have choices in reading, writing, and inquiry that build reading and writing skills; and
- create student interactions with text and with other students about text, emphasizing student questions, predictions, and summarizing in ways that allow students to complete authentic work with a personal purpose or for larger audiences to consider. (Meltzer & Hamann, 2004)

A commitment on the part of the teacher to increase his or her knowledge base about literacy instruction and strategies is also a critical factor in positive effects on student learning (Gurney, 2007). Teachers should display a curiosity and passion for literacy work within their content area, and share this curiosity and passion through classroom interactions with students. Teachers need to model being life-long learners and developers of their own literacy skills (Strong, Silver, & Robinson, 1995).

Planning for and developing reading selections for students that are diverse in nature, high-interest, and at a reading level accessible to the student is another strong factor in student literacy development at the secondary level (Torgesen, 2006). Teachers have a key role in building in-classroom libraries and collections of reading selections connected to content learning (Tovani, 2000). Locating resources and working with reading specialists, media specialists, and community groups to find reading materials has become a key role for the teacher in literacy development (Torgesen, 2006). Teachers also need to develop an awareness of student backgrounds, cultural heritage, current interests, and demographic considerations

when locating and selecting student reading materials (Biancarosa & Snow, 2004). This role is a great challenge. A study of Philadelphia-area high schools in 2009 that engaged in literacy initiatives found that teachers reported one of their greatest challenges to positively engage students in literacy improvement was finding reading materials that were content relevant, connected to student interests, and written at lower levels for accessibility to many students that were reading three or more grades below grade level (Gold, Edmunds, Maluk, & Reumann-Moore, 2011).

Another factor for teachers to develop literacy skills in students is to provide opportunities for discussion and debate (Schmoker, 2011). Azzam surveyed students and found 83% of students' surveyed stated they learned best when allowed to discuss and debate topics of interest (as cited in Schmoker, 2011). Developing one's opinion through reading, writing, and speaking is one of the best ways to ensure high engagement, as each individual has views unique to their experience; but this should be connected to asking students to read text deeply to inform their views and opinions (Schmoker, 2011).

Strategies teachers employ to teach students how to decipher, organize text, and identify and make sense of key themes in reading selections are critical to student success in reading (Zimmerman & Hutchins, 2003). Teachers can have positive impact for student reading comprehension by knowing and modeling for students "fix up" strategies that provide support for students at the secondary level as they read complex reading selections (Tovani, 2000). Strategies shown to be effective at the secondary level to help students comprehend text include creating visuals mentally as they read, discussing personal text connections with peers as they read, teaching students to look for *who-what-where-when-why* as they read, using key words to make inferences to identify text meaning, using peer discussion and debate to determine key

themes and importance, modeling note taking techniques of making notations in the margins of the text per paragraph, and training students to re-read text if they have stopped asking themselves questions or taking visuals of what they are reading (Tovani, 2000; Zimmerman & Hutchins, 2003).

Teachers can support student reading development by arranging for students to read text that is challenging, such as informational text. Consideration for the difficulty level of the reading and the amount of content knowledge needed to comprehend the text has come to be known as *text complexity* (Frey & Fisher, 2013). Teachers have a critical role in supporting students as they read complex text (Frey & Fisher, 2013). Approaches teachers can utilize include setting a clear purpose or guiding question for the reading, planning close reading instruction in which short pieces of the text are read multiple times with the use of note taking strategies, creating opportunities for students to discuss what they have read with peers, and allowing independent reading times based on short selections after purpose and note taking support has been modeled (Frey & Fisher, 2013).

A key component in developing student comprehension of complex text is ensuring students have developed understanding of the content and context that is central to the theme of the reading selection (Hirsch & Hansel, 2013). Students with "high-IQ and low-IQ perform at about the same level when both groups have equal subject-matter content" (Hirsch & Hansel, 2013, p. 32). Teachers must ensure that students have all the relevant information on a topic, either specifically stated or implied in a reading selection, for students to read words in a way that points them to identifying themes and connections in texts (Hirsch & Hansel, 2013). Teachers who can predict and identify gaps in student background knowledge of the content in a reading selection, and can effectively intervene by front loading needed background information

prior to student reading, are more successful in improving student reading comprehension (Hirsch & Hansel, 2013).

Another strategy teachers can model with students to support their comprehension is a concept known as coding (Hoyt, 2008). After reading a quantity of text, students code their thinking using these symbols: "* This information is already familiar, + This is new information, I'm not sure I understand this information, and ✓ I tried to problem solve by _____" (Cummins, 2013a, p. 199). Students write the code in their reading notes and write thoughts connected to the code as a way to track their thinking. This strategy has been successful with secondary level students who struggle to monitor their progress comprehending text as they read (Cummins, 2013b).

Teachers must be aware that many students from poverty backgrounds come in to the classroom with a much smaller word and domain knowledge base; often half of what students from middle class backgrounds have (Hirsch, 2003). Teachers must prepare for multiple opportunities for students to be exposed to words, as word acquisition is incremental over time as opposed to simply learning a word in a one-time experience (Hirsch, 2003).

Teachers must spend time developing necessary background knowledge and contextual understanding of the reading selections used to increase student word knowledge (Tovani, 2000). Teachers must be especially aware of the deficits in background and cultural knowledge of students in poverty (Hirsch, 2003). In a study conducted by Hirsch, a professor at the University of Virginia, he found that students in his classes could understand many contexts in readings about the U.S. Civil War, yet students in the same geographic area at a local community college struggled with the same article, despite similar teaching methods employed. Hirsch argued that the students from the community college, many from poverty backgrounds, need strong teacher

awareness and intervention from a cultural literacy perspective. He further argued that a student's cultural literacy is impacted by poverty and the home/school experiences associated with poverty (Hirsch, 2003).

Student Factors in Learning

Schools can account for around 20% of the variability in student achievement, while student characteristics account for around 80% of student achievement (Marzano, 2003). Risk factors related to poverty can account for the strongest negative impacts on student achievement (Jensen, 2009). For example, poverty is found to have a strong correlation with high school dropout rates, with 22% of students who have lived in poverty at least one year not graduating from high school. This percentage increases 10% for students who lived in poverty multiple years, and only 6% of students not in poverty drop out of high school (Hernandez, 2011).

The first study to present that poverty was the strongest influence of student achievement was presented in the 1966 Coleman Report, in a study commissioned by the U.S. Department of Education (Ladd & Fiske, 2011). In the report, Coleman argued that socioeconomic status was the strongest influencer of student achievement, more so than school funding (Ladd & Fiske, 2011). Recent data only reinforced this finding. NAEP data showed that 40% of the variance in student scores on NAEP reading tests was associated with the variance in student poverty rates (Ladd & Fiske, 2011). International data also exists to show the negative influence of poverty on student achievement in the United States, as PISA results from 2009 show U.S. schools with less than 10% poverty rank number one in reading, math, and science achievement when measured against other international schools with less than 10% poverty (Ladd & Fiske, 2011; NCES, 2013). However, U.S. schools with poverty rates above 50% ranked in the bottom of all students internationally (NCES, 2013).

Social relationships students experience with family, peers, and adults at home influence the attitudes and readiness students have for school (McLeod & Shanahan, 1993). Students in poverty are much less likely to benefit from positive social relationships than students from affluent or middle school backgrounds (Jensen, 2009). A major cause of this is that families in poverty face overwhelming challenges that exert time and mental focus more affluent families do not have to deal with, like affording basic needs such as food and clothing (President's New Freedom Commission on Mental Health, 2003). The stress of this reality leads to a variety of consequences for students and families such as not being able to attend to basic health needs, provide experiences to build student background knowledge, or create positive daily interactions, which can lead to a struggle to form healthy relationships with children (Ahnert, Pinquart, & Lamb, 2006). These negative impacts on a student's school readiness can be strongly influenced by poverty. White's (1982) research argued home environment is the strongest influencer of student learning. In a 1982 quantitative research article, White presented the following:

> Measures of home atmosphere correlated much higher with academic achievement than did any single or combined group of the traditional indicators of socio economic status. There are many differences among families that can potentially affect the academic achievement of the children in addition to the differences in education, occupational level, and income of the parents. It is not at all implausible that some low-SES parents (as defined in terms of income, education, and/or occupational level) are very good at create a home atmosphere that fosters learning (e.g., read to their children, help them with their homework, encourage them to go to college, and take them to the library and to cultural events), whereas other low SES parents are not. (p. 471)

The second student-level factor that influences student learning is the amount or degree of background knowledge one has in a particular subject (Marzano, 2003). One way that has been identified to increase background knowledge and student learning in the process is by increasing vocabulary knowledge (Allen, 1999). This can be done by reading a wide range of materials and direct instruction of needed vocabulary in order to build the background information necessary to acquire new learning on a topic (Marzano, 2010).

A third factor for student learning is the amount and type of student motivation that the student brings to the learning process. Simply put, the more a student is motivated to learn certain content, the better the student's achievement will be (Willingham, Pollack, & Lewis, 2002). Atkinson noted one way to help students bring more motivation to the learning process is to help students focus on striving for success through goal setting (as cited in Marzano, 2003). Atkinson also offered that students who focus on success are generally motivated to try new tasks due to seeing how this can help their future goals, are motivated by challenges, and will persevere through difficulties with the end result in mind (as cited in Marzano, 2003). Student motivation can also be developed through challenging tasks that also are not beyond the intellectual potential of the individual so they have some control over the activity (Covington, 1992). Planning activities in which the answer, objective, or answer is not always the same or easily identified, coupled with activities geared towards student interest, can lead to curiosity that will help students go farther in their learning (Covington, 1992).

Student Factors in Literacy

A strong barrier to student literacy is word knowledge, domain knowledge, and vocabulary acquisition (Chall, Jacobs, & Baldwin, 1990). Students from disadvantaged backgrounds enter Kindergarten having learned about half as many words as students from

advantaged homes (Hirsch, 2003). Low-income homes also expose their students to much simpler sentence structures than middle-income homes (Hart & Risley, 1995). Students with more word exposure early in their life are at a clear advantage later, as high-performing students in high school know four times more words than low-performing students (Hirsch, 2003). Students build vocabulary word knowledge not by learning 15 words a day, but by being exposed to a word up to a dozen times in many contexts (Hirsch, 2003). Students must be able to increase their general word knowledge through a variety of experiences with language that is accompanied by strong pre-teaching and follow up discussions to build background knowledge about words and their contexts (Chall et al., 1990).

Domain knowledge involves student understanding of the larger contexts and themes involved in reading selections and stories (Hirsch, 2003). This area also allows a student to make sense of word combinations and choose from many word meanings (Hirsch, 2003). Students may know words, but when put together in unique contexts, students may not have related knowledge or experience to understand larger themes and meanings (Chall et al., 1990). Students from poverty backgrounds are behind from the beginning in language and content learning, and it can have a negative impact on student motivation (Irvin et al., 2007).

Irvin et al. (2007) presented the following viewpoint regarding students' views and motivation for reading and writing when it is a difficult task:

> Discussions with teens who are struggling readers and writers do not suggest convictions such as "we are proud of not being able to read and write well" and "we should be left alone to reap the lifelong consequences of leaving school with inadequate literacy skills to face the workplace and the responsibilities of citizenship." Many of these students understand that poor literacy skills place them at a distinct disadvantage economically,

> personally, vocationally, and politically. They want to be better readers and writers, but in addition to their weak literacy skills, other barriers interfere such as minimal and inappropriate help, alienation from school environments and curricula that are irrelevant to their lives, and unreceptive environments for admitting the level of vulnerability they feel. (p. 31)

The realities surrounding a struggling secondary reader make it imperative that schools develop a literacy rich culture in which word and background knowledge development is the focus of all teachers, along with additional support in the form of individualized tutoring and interventions, balanced with a focus on connecting literacy to student relevance (McPeak & Trygg, 2007).

According to a survey conducted by the Center for Evaluation and Educational Policy at Indiana University in 2009, 50% of high school students surveyed reported being bored in a class every day of their high school career (Yazzie-Mintz, 2009). A connection must be made in student literacy development between academic needs such as increasing word knowledge with engagement and relevance to student literacy learning activities (Schmoker, 2011).

It is critical students are given clear purpose for what they are reading and writing to foster relevance and buy in (Schmoker, 2011). First, teachers should share needed background information on the topic, read something interesting related to the topic, and then discuss student connections to the topic in recent or previous learning (Schmoker, 2011). Next, student buy in and relevance can be built with well-planned guiding questions or prompts that will guide reading and writing on the topic (Schmoker, 2011). Teachers can build strong student buy in by considering relevant topics of student interest that can be connected to core content, then incorporate student opinion, backed by factual information from text readings, in student writings and discussion (Schmoker, 2011).

If secondary students are fortunate enough to receive strong word development, effective instruction, and motivation in reading development, it is critical students take ownership on their own time and read a variety of materials that are of interest to them (Schifini, 1999). Secondary students that make the greatest gains in reading performance spend time outside of the school setting reading, developing vocabulary, and discussing what they are reading with others. It is critical students also invest their own time and effort in reading development to expand on what they are learning in the school setting (Schifini, 1999).

Reading can be a very social activity and can trigger student engagement in reading development. Students should prepare to share their unique perspectives and life experiences in connection to their reading to deepen the learning process (Gambrell, 1996). Students also need to feel a sense of belonging, particularly in a group or partner learning activity (Lent, 2012). Students should have a clear role in a group learning situation to guide their social learning, and in the process they will feel more engaged in the task (Lent, 2012).

Tracking progress can be another factor a student can bring to their reading development to positively impact reading performance (Hunter, 2005). Charts, reading logs, and goal sheets can give students visible data to show progress for meeting reading goals. Use of tracking documents can accelerate student motivation and help students clearly understand what their reading progress is, provided they consistently commit to documenting reading activities (Braunger & Lewis, 1998).

Another way to address student buy in for literacy and establish relevance is to survey students to establish the best ways they want to be engaged in learning (Frickey, 2013). Quantitative surveys that measure student interests, best activities to engage students, and current issues of interest are all ways to inform teachers how to address student buy in (Frickey, 2013).

Teachers that use this data to drive instructional planning to address relevance in learning activities are more likely to engage students in meaningful ways (Frickey, 2013).

CHAPTER 3

RESEARCH METHODOLOGY

The purpose of this study was to understand and discover school- teacher- and student-level factors that describe literacy instruction at the secondary level of schools with higher than predicted state testing scores in language arts. Research questions to be explored were

1. What school factors and approaches are found and utilized in literacy instruction by secondary schools with higher than predicted state testing scores in language arts?

1a. What teacher practices and approaches are found and utilized in literacy instruction by secondary schools with higher than predicted state testing scores in language arts?

1b. How do secondary schools with higher than predicted state testing scores in language arts address student factors that most contribute to positive student motivation and buy in for literacy instruction?

Quantitative and qualitative research differs in the approach taken to explore research questions. Quantitative research if often considered scientifically based because the variables that are measured are looked at in a quantifiable, or numerical analysis based on number values (Creswell, 2009). Mertens (1998) stated that quantitative research is a "process of creating an empirical test to support or refute a knowledge claim" (p. 59). Through deductive reasoning, the quantitative researcher uses instruments to test hypotheses and theories developed prior to the gathering of data. The researcher's role in quantitative analysis is detached and impartial.

Through analysis of numbers, the quantitative researcher is seeking generalizability, prediction, and causal explanations.

Qualitative research involves the use of words instead of numbers to arrive at conclusions. It is focused on the basic assumption that the problem is context, or situational dependent. Inductive reasoning is involved since the researcher seeks to interpret or understand the study participants' perspectives to reach a complete understanding of the problem. The researcher's role is one of active participation as the researcher is the primary instrument for data collection (Creswell, 2009; Mertens, 1998; Tesch, 1990).

The concept of mixed-method approaches to studying a research problem was introduced in 1959 when both quantitative and qualitative approaches were used to study the validity of psychological traits (Creswell, 2009). In the 1990s, the idea of mixing methods moved to a thinking of integrating both quantitative and qualitative data. An example would be taking the results from one method to help identify the subjects or participants to study or ask questions of in the other method (Tashakkori & Teddlie, 1998).

A mixed-method approach was selected for this study. First, a quantitative approach was used to identify and rank in order the list of the top 20 secondary schools in Indiana with higher than expected language arts scores on state testing, considering free and reduced lunch status.

This information was used to identify schools for a multiple case study design. Case studies are explorations of one or more systems that are bounded by time and activity. The researcher collects data through a variety of methods over a period of time (Creswell, 2009). Stake (1995) explained that case studies are investigated because

> we are interested in them [case studies] for both their uniqueness and commonality. We would like to hear their stories. We may have reservations about some things the people

> tell us, just as they will question some of the things we will tell them. But we enter the scene with a sincere interest in learning how they function in their ordinary pursuits and milieus and with a willingness to put aside many presumptions while we learn. (p. 1)

The multiple case study design or collective case study investigates several cases to gain insight into a central phenomenon (Creswell, 2009; Stake, 1995).

Case Selection

A linear regression was executed for all middle and high schools in Indiana for spring 2011, 2012, and 2013 state testing results. This was used to build a predicted language arts scale score based on free and reduced lunch status for all schools, and was created using an unstandardized partial regression coefficient. The regression prediction equation, $Y' = a + b(x)$, was used to identify schools. Y' represented the predicted language arts scale score for a secondary school. The a represented the predicted language arts scale score value when the free and reduced lunch rate of a school is zero. B represented the slope or the amount of change in Y' with one unit of increase in free and reduced lunch rate. X represented the free and reduced lunch rate of the secondary school. The predicted scale score was then subtracted from the actual scale score to determine the residual difference.

The prediction equation was utilized if the predictor variable (free and reduced lunch rate) explained a significant amount of the variance within the criterion variable (language arts scale score). The predicted scale score for a school was subtracted from the actual scale score looking for a residual difference. Schools with the largest positive residual differences (exceeding expectations) in at least two of the three years were selected for participation.

School scale scores were converted to *z*-scores for Grades 7, 8, and 10, since those scale scores were not on the same metric. For example, a scale score of 500 represented a different

level of proficiency for each grade in the study. *Z*-score conversion allowed for consistency in comparison of school data in Grades 7, 8, and 10.

This process lead to the identification of the top middle and high schools in Indiana that outperformed their predicted state testing score in language arts. A ranking list was created with the schools posting the largest positive residual difference at the top. The study sought to gain permission from two middle schools and two high schools, asking schools at the top of the ranking list first from the list generated from the regression equation. The goal of the study sought to discover approaches, attitudes, and implementation practices in literacy instruction at these over-performing schools.

Participants included all building administrators and teachers at the identified schools willing to volunteer to participate in this study. Age, gender, ethnicity, and health status were not a factor in selection as teaching and administrative employees of the selected schools were the participant pool. Any teacher or administrator had to be employed in these positions at the selected school at least one school year prior to the school year of the interviews. This was to ensure the interview pool had experiences with the literacy culture of the school to provide responses to interview questions. It was the goal of the study to interview at least 60% to 100% of the faculty of the selected schools to gather a deep range of interview responses. The setting of the study was the location of the schools identified in the linear regression model.

Data Collection

Data collection took place over a three-month period from December 2013 through February 2014. Data collection protocols and procedures were approved by the Indiana State University Institutional Review Board and by each school's local school system. Participants signed an Informed Consent Form (Appendix A) explaining the purpose, procedures, and

benefits of the study and told they had the opportunity to ask questions and the freedom to withdraw from the study. There were no perceived risks to the participants, and anonymity and confidentiality were ensured by using school, principal, and teacher pseudonyms. Data were stored electronically on my personal laptop, which was password protected, and was not available for public review or scrutiny.

Data collection began with a request and review for all secondary-school ISTEP and ECA scores in language arts in Indiana from the spring of 2011, 2012, and 2013. Data factors included school performance data and the economic factors of free and reduced lunch status percentages for the students of each Indiana secondary school. Data were used to create a regression equation using predicted test scores for all secondary schools based on free and reduced lunch status. Predicted scores from a linear regression were compared with actual state testing scores in language arts to identify schools with higher than predicted performance. For this study, data were collected in the form of surveys and semi-structured interviews with principals and teachers of identified schools, non-participant observation, document collection, and a reflective journal.

Surveys

Identified schools that volunteered to participate were asked to complete an electronic survey which was delivered via Survey Monkey one week prior to a site visit by me for interviews. The surveys measured quantifiable frequencies related to teacher and school factors in literacy. One survey was created for this study, but with two different sets of questions based on the Chapter 2 literature review; one for building administrators (Appendix B) and one for teachers (Appendix C). The administration survey asked about professional development, student buy-in considerations, scheduling factors, and approaches to support literacy instruction

at the school level. The teacher survey asked about the same areas from their perspective. The surveys measured attitudes, behaviors, strategies employed, and actions in literacy in the school setting.

Interviews

The principals and teachers in the identified schools were interviewed separately. The principal and teacher interviews took place at the identified school, and those interviews occurred separately. The principal participated in a 60-minute interview. Teachers in language arts and teachers from all other school department areas were interviewed for 30 minutes in groups of 2-5 teachers. Interviews were conducted until at least 60% of the school faculty had been interviewed. All interviews were audio-recorded, and I took notes. Participants were given a pseudonym to protect their identity in the principal investigator's notes. Each participant was provided a consent form and was told that he or she may withdraw at any time during the interview. The form also explained that this study was for dissertation research and was not connected in any way to the evaluation program of the school district or teacher.

One interview protocol was created for this study, but with two different sets of questions based on the Chapter 2 literature review: one for building administrators (Appendix D) and one for teachers (Appendix E). The administration interview protocol asked about professional development, student buy-in considerations, scheduling factors, and approaches to support literacy instruction at the school level. The teacher interview protocol asked about the same areas from their perspective.

Non-Participant Observation

The purpose of the observation sought gain additional information about the literacy processes and approaches that are being practiced in each identified school. A comparison of

observed approaches was made to approaches shared in the interviews. The observation was conducted by me and took place one to two days after the interviews in the identified school. In the observation, identified school teachers and administrators were observed participating in either literacy instruction approaches commonly used in the school, in both language arts and other content areas, and / or professional development participated in as a part of the school literacy development plan. Notes were taken during and after the observation.

Documents

The documents gathered for this study included any type of papers, forms, rubrics, or manuals used by teachers or students as a part of the school literacy initiative and were used to substantiate interview statements. Scribed interview notes, recorded interviews, and typed transcription notes were kept in my possession at all times and were locked in a safe. Digital transcription notes were protected by password and were only found on my personal computer. Privacy was ensured with the use of case site codes to replace the real names of all participants at each school selected. Each school selected received a case site code as well.

Data Analysis

Before the data were analyzed, I transcribed all interviews, observations, and documents. All files were protected by password and saved on a portable computer to which only I had access. The meaning of analysis context was used as the unit of analysis for coding and also for description. This means that the data was not coded sentence-by-sentence or paragraph-by-paragraph but was coded for meaning

This study followed the multiple case study design where the data is analyzed case by case through thematic analysis and later by cross-case analysis (Stake, 2006). As a result, interviews, observations, documents, and field notes were analyzed for each case. Following

case-by-case analysis, all themes were used to conduct the cross-case analysis. Themes emerging across all cases were kept along with all cases that were extremely different. For the thematic analysis, I followed Braun and Clarke's (2006) step-by-step guidelines. These guidelines are (a) familiarize yourself with the data, (b) generate initial codes, (c) reading through each transcript to immerse in the data, (d) reviewing themes, (e) defining and naming themes, and (f) producing a report. Stake (2006) described three different cross-case procedures for a multiple case study. For this qualitative study, I used the merging findings procedure, which allows the researcher to determine patterns among cases and group like findings into generalizations.

Validation Strategies

Qualitative research is often criticized for a lack of reliability and for limited validity because findings cannot be generalized to a larger population (Yin, 1994). However, this type of research can be generalized to theory and understood in contextual meaning that may be considered in balance with the contextual realities of another situation. Also, qualitative researchers utilize various validation strategies to make their studies more credible and rigorous (Creswell, 2009). Credibility for this study was achieved using validation strategies of triangulation, research reflexivity, thick rich description, and peer debriefing.

The data were triangulated with the various forms of data that were collected in this study (i.e., interviews, observations, documents, reflective journals, and field notes). I shared at the end of the introduction past involvement in the topic of literacy instruction to inform potential bias. Thick rich descriptions were achieved by presenting the participants voices under each theme and providing a detailed description of each of the cases. Finally, I received the assistance of two peer debriefers familiar with qualitative analysis.

Stake's (1995) critique checklist was used to assess report quality and included the following 20 items:

1. Is the report easy to read?
2. Does it fit together, each sentence contributing to the whole?
3. Does the report have a conceptual structure (i.e., themes or issues)?
4. Are its issues developed in a serious and scholarly way?
5. Is the case adequately defined?
6. Is there a sense of story to the presentation?
7. Is the reader provided with some vicarious experience?
8. Have quotations been used effectively?
9. Are headings, figures, artifacts, appendixes, and indexes used effectively?
10. Was it edited well, then again with a last-minute polish?
11. Has the writer made sound assertions, neither over-nor-under interpreting?
12. Has adequate attention been paid to various contexts?
13. Were sufficient raw data presented?
14. Were the data resources well-chosen and in sufficient number?
15. Do observations and interpretations appear to have been triangulated?
16. Are the role and point of view of the researcher nicely apparent?
17. Is the nature of the intended audience apparent?
18. Is empathy shown for all sides?
19. Are personal intentions examined?
20. Does it appear that individuals were put at-risk? (p. 131)

Ethical Considerations

All of the participants were treated in accordance to the ethical guidelines of the American Psychological Association (APA) and the Indiana State University Institutional Review Board. Although there were no identifiable risks for the participants in this study, a few considerations were kept in mind. First, participants may have been concerned about the present climate of mandatory teacher evaluation in Indiana, personnel pay based in part to the evaluation score, and the possible implementation of Indiana Common Core Standards. Participants may have felt pressured to answer questions in a certain way to make themselves or their school "look good" given the considerations previously listed.

All of these considerations were incorporated during the research design stage. Every caution was taken to ensure that all participants feel safe and comfortable, had the freedom to withdraw from participation at any time, and assured that responses were not in any way connected to district, school, or teacher accountability measures, but were only intended to inform and advance science.

CHAPTER 4

FINDINGS

Chapter 3 highlighted the methodology for the study. This discussion included the study approach, the role of the researcher, and the basic design of the study. Chapter 4 details the linear regression results that identified four high-performing schools for this study, as well as the language arts approaches and strategies of the four high-performing secondary schools (two middle schools and two high schools) based on interview and survey results. The three research questions discussed in the Chapter 1 Introduction were the framework for this study. The three research questions were

1. What school factors and approaches are found and utilized in literacy instruction by secondary schools with higher than predicted state testing scores in language arts?
2. What teacher practices and approaches are found and utilized in literacy instruction by secondary schools with higher than predicted state testing scores in language arts?
3. How do secondary schools with higher than predicted state testing scores in language arts address student factors that contribute to positive student motivation and buy in for literacy instruction?

Each year a linear regression was executed to see if there was a significant relationship between ELA test results and free/reduced lunch rates for middle schools and high schools in Indiana from 2010-2013. Each year an inverse relationship was found between ELA test results

and a schools free/reduced lunch rate. Each year, free/reduced lunch rate was a significant inverse predictor of ELA test results, $p < .001$.

Table 1 shows the model summary statistics demonstrating the correlation between the actual and predicted ELA scale scores. *R* represents the correlation between free/reduced lunch rate and ELA scale scores. According to Field (2009), *R* represents a small effect at .10, a medium effect at .30, and a large effect at .50. Table 1 shows a strong/large correlation between free/reduced lunch and ELA scale scores in each year of the regression at values beyond .50. R^2 represents the amount of variance in ELA scale scores that can be explained by free/reduced lunch rates. *Adjusted* R^2 explains how much variance in ELA scale scores would occur if the model was taken from the population in which the sample was taken. Since the sample size in this model was all middle schools and high schools in Indiana, R^2 and *Adjusted* R^2 are nearly identical. The standard error of the estimate explains how far each data point in the model is from the prediction line, or how much variability there was in this regression across samples from the same population.

Table 1

Model Summary Statistics for Criterion Variable (ELA Scale Scores) for Middle Schools and High Schools in Indiana - 2010-2013

Criterion Variable	*R*	R^2	Adjusted R^2	*SE* of the Estimate
2010-11 Middle School Predicted Scale Score	.746	.556	.555	14.33999
2011-12 Middle School Predicted Scale Score	.719	.517	.516	14.79160
2012-13 Middle School Predicted Scale Score	.746	.557	.556	12.44633
2010-11 High School Predicted Scale Score	.698	.488	.487	24.50216
2011-12 High School Predicted Scale Score	.670	.449	.448	23.40320
2012-13 High School Predicted Scale Score	.679	.462	.460	20.55214

In 2010-2011, the predicted ELA scale score of a middle school in Indiana with a free/reduced lunch rate of zero was 574.54. The expected scale score for each school decreased by -.86 with each 1% increase of the free/reduced lunch rate of the school. The predicted ELA scale score of a high school in Indiana with a free/reduced lunch rate of zero was 532.55 in 2010-2011. The expected score for each high school decreased by -1.31 with each 1% increase of the free/reduced lunch rate of the high school.

In 2011-2012, the predicted ELA scale score of a middle school in Indiana with a free/reduced lunch rate of zero was 573.31. The expected scale score for each middle school decreased by -.82 with each 1% increase of the free/reduced lunch rate of the school. In 2011-

2012, the predicted ELA scale score of a high school in Indiana with a free/reduced lunch rate of zero was 443.90. The expected scale score for each high school decreased by -1.12 with each 1% increase of the free/reduced lunch rate of the school.

In 2012-2013, the predicted ELA scale score of a middle school in Indiana with a free/reduced lunch rate of zero was 574.20. The expected scale score for each school decreased by -.73 with each 1% increase of the free/reduced lunch rate of the school. In 2012-2013, the predicted ELA scale score of a high school in Indiana with a free/reduced lunch rate of zero was 425.92. The expected scale score for each high school decreased by -1.07 with each 1% increase of the free/reduced lunch rate of the school.

In Table 2, the ranking list of the Indiana high schools (code names) with the largest average three-year residual differences are listed based on the linear regression calculation, along with the schools' three-year average (2010-2013) free/reduced lunch rate, enrollment, and predicted scale score. The residual difference was found by subtracting the school's predicted ELA scale score from their actual scale score from 2010-2013. Table 2 includes a three-year average of the results.

Table 2

Regression Results for Top 12 High Schools in Indiana, End of Course Exam ELA Results 2010-2013

Indiana High Schools	Free/Reduced Lunch Rate 2010-2013 (Avg.)	Enrollment (Avg.) 2010-2013	Predicted Scale Score 2010-2013 (Avg.)	Residual Difference 2010-2013 (Avg.) *Results above Predicted Score
School #1	21.00	302	442.50	+130.32
School #2	8.00	338	457.97	+118.42
School #3	12.00	1,041	452.69	+ 76.07
School #4	85.37	541	365.54	+ 75.27
School #5 School A in Study	49.16	177	365.54	+ 66.45
School #6	9.10	4,685	456.87	+ 53.05
School #7	17.00	2,582	446.82	+ 52.67
School #8	74.13	372	379.13	+ 52.41
School #9	51.50	186	406.26	+ 47.70
School #10	41.00	590	418.92	+ 44.00
School #11	42.00	260	416.13	+ 38.90
School #12 School D in Study	34.00	1,145	426.84	+ 38.09

In Table 3, the ranking list of the Indiana middle schools (code names) with the largest average three-year residual differences are listed, along with the schools' three-year average (2010-2013) free/reduced lunch rate, enrollment, and predicted scale score.

Table 3

Regression Results for Top 12 Middle Schools in Indiana, ISTEP Exam ELA Results 2010-2013

Indiana Middle Schools	Free/Reduced Lunch Rate 2010-2013 (Avg.)	Enrollment (Avg.) 2010-2013	Predicted Scale Score 2010-2013 (Avg.)	Residual Difference 2010-2013 (Avg.) *Results above Predicted Score
School #1	45.70	848	537.24	+ 34.14
School #2	11.27	874	564.03	+ 26.80
School #3	37.40	566	544.96	+ 25.90
School #4	62.77	627	523.34	+ 24.06
School #5	48.33	211	534.44	+ 24.03
School #6	57.16	614	529.68	+ 22.87
School #7 School C in Study	78.57	596	510.81	+ 22.82
School #8	53.80	173	531.62	+ 22.32
School #9	52.78	929	532.97	+ 21.07
School #10	72.11	255	516.71	+ 20.74
School #11	44.17	427	539.46	+ 20.62
School #12 School B in Study	40.48	328	542.29	+ 19.69

Chapter 4 reports the findings through an introduction of each of the school participants. Each school profile addresses the research questions by (a) providing demographic, socioeconomic, and language arts academic performance data of each school; (b) sharing the school approaches and factors used for literacy instruction of each school; (c) detailing the teacher practices, attitudes, and approaches to literacy instruction; and (d) expressing how student factors such as relevance and buy in are addressed by each school. Chapter 4 also details the findings of four emergent themes. All names have been changed to keep the schools and participants anonymous.

Participant Profiles

Four public secondary schools in Indiana participated in this study. Two school participants were middle schools; two school participants were high schools. Each of the four school participants was uniquely different demographically. The language arts department and at least 50% of the rest of the faculty were interviewed in each case, along with a separate interviews with school administrators. Eighty-seven teachers and four school principals were interviewed for this study from the four participating schools. School A was a low enrollment, rural high school in southwestern Indiana. School B was a high enrollment, suburban high school in central Indiana. School C was a medium enrollment, middle school in rural west central Indiana, and School D was a high enrollment, urban middle school in east central Indiana.

The schools were recruited after they were identified from the linear regression previously described in this chapter for all middle and high schools in Indiana for spring 2011, 2012, and 2013 state testing results for language arts. The linear regression was used to build a predicted language arts scale score based on free and reduced lunch status for all schools in Indiana. The predicted scale score was then subtracted from the actual scale score to determine

the residual difference. A ranking list was created with the schools posting the largest positive residual difference at the top. The study sought to gain permission from two middle schools and two high schools, asking schools at the top of the ranking list generated from the regression equation. The four participating schools were recruited by phone between February and March 2014. After the school principal agreed to volunteer his or her school to participate in the study, the principal signed and returned the consent to participate form (Appendix A). The principal of the participating school then received and completed the literacy survey for the administrator of the school (Appendix B). After this consent was received, teachers at the school received an email introducing the study and explained their voluntary opportunity to participate. The school principal and I then collected consent to participate forms from the teachers participating in the study (Appendix A). Upon signing and returning the consent form, participants received a link to complete the literacy survey (Appendix C). Upon completion of the literacy surveys, each school was scheduled for face-to-face interviews with me. These interviews were conducted using non-leading, open-ended questions that sought to understand how participating schools approached literacy instruction throughout the school. The principal was interviewed first regarding the school's literacy approach (Appendix E). The language arts department was then interviewed together as a group, and then teachers in all other subject areas were interviewed in small groups.

The next section details the findings from the interviews and survey responses of all four participating high-performing schools regarding how literacy instruction was approached in the respective schools. The data collected were reported by each participating school organized in a phenomenological way. The findings reported how literacy instruction was defined and approached, what school and teacher factors contributed or did not contribute to the school's

literacy culture, and how student factors contributed to the school's literacy instruction. Similarities and differences between participant responses both in interviewing and survey results were identified. Next, school participants' responses were reported by four themes. An interpretation of the findings follows in Chapter 5.

School A

School A was a small, rural high school in Indiana with a student population of 177 students in Grades 9-12. Seventeen teachers with a balance of experience were employed in School A, as six teachers had taught 20-plus years, six teachers had taught 6-10 years, and five teachers had taught five years or less (Indiana Department of Education, 2014). Nine of the 17 teachers participated in a survey regarding literacy instruction at their school, and 12 of the 17 teachers participated in the on-site interview.

School A had a student population of 96% White students, less than 1% English language learners, 53% received free/reduced lunch, and 17% of students received special education services. School A Grade 10 students had posted pass rates on the English End of Course exam of 90% passed in 2012-2013, and 92% passed in 2011-2012. School A earned a bonus point for language arts student growth under Indiana's accountability model during each of these school years (Indiana Department of Education, 2014). School A posted a three-year average residual difference between its predicted English End of Course exam average scale score and actual average scale score of +66.45, scored on average 66 points higher than expected when taking its percentage of free/reduced lunch students into account (Table 1).

School A survey results reported that the language arts teachers all stated that they felt literacy instruction had clearly been defined, and five of nine teachers stated literacy instruction had been defined to an extent for all teachers. Two teachers submitted literacy instruction had

not been defined at all, and two teachers reported literacy instruction had been somewhat defined. Eight of the nine teachers answered that they had "bought in" that they could impact literacy development of students either to an extent or to a great extent. However, six of the nine teachers stated that they perceived their teaching staff had either only "somewhat" bought in or had not bought in at all that literacy development could be impacted through their content area. Six of nine teachers listed participating in occasional or no professional development opportunities related to reading, writing, or vocabulary instruction. The three language arts teachers reported having conversations about literacy instruction with colleagues and sharing successes to a great extent, and five teachers reported only occasional conversations pertaining to literacy or none at all. Two teachers in social studies reported discussing literacy instruction with colleagues often. Five of nine teachers reported that their school did not address student buy in at all, and two other teachers reported the school addressed student buy in occasionally.

When surveyed about the extent to which their content area was used to develop writing skills such as persuasive or informational writing, five of nine teachers reported occasional focus on this area or none at all. The three language arts teachers reported developing writing skills all the time. Six of nine teachers reported occasionally or not at all working with students on vocabulary development by using Marzano's six steps of effective vocabulary instruction. Seven of nine teachers reported having students identify similarities and differences with content specific vocabulary either not at all or occasionally. Five of nine teachers reported having students read content in their subject area by taking present reading levels into account either not at all or occasionally.

Finally, eight of nine teachers reported that someone checked to ensure teachers were integrating literacy strategies in their content area either occasionally or not at all. And six of

nine teachers shared that the administration of the school had not sought teacher input regarding how and why to focus literacy instruction in all content areas, or had occasionally. Two teachers stated administration had sought input for how and why to focus literacy instruction often, and one teacher reported this occurred all the time.

Twelve teachers from School A participated in the on-site interview. Three language arts teachers were interviewed as a group. The other nine teachers were interviewed in a group of four and a group of five.

The language arts teachers stated that literacy instruction had not specifically been defined for the faculty by anyone, and the language arts faculty decided to use the National Common Core Standards for language arts to drive their idea of literacy. "We just started reading Common Core since it looked like Indiana was going to adopt it, and we liked the emphasis on reading to identify themes and writing in response to what is read." The language arts teachers discussed that the Common Core reading and writing standards drove their conversations with colleagues in all subjects in the school. "We have shared with the other teachers Common Core wants them to have kids writing about what they are reading and reading non-fiction very closely, so in this way I guess we used Common Core ourselves to define literacy."

When asked why their school's ELA scores were higher than those of a school with their free/reduced student population with typical scores, the language arts teachers discussed the continuity of their department and their common focus on writing development in students.

> We have been in our positions for over 15 years, all three of us. We spend a lot of time in Grades 7-9 on writing fundamentals so in Grade 10 we can focus on more advanced writing skills that earn additional points like how to use deeper vocabulary. We do not

> have to spend time on paragraph structure by Grade 10, our kids have that down. Plus we have had the same teacher teach English 10 for over 20 years, she knows the standards and what will be on the test in her sleep and builds the curriculum to prepare students for the test. And all she teaches is English 10 and she writes grants for the district in the afternoon, so she has time to focus on English 10 test preparation and student data each day.

The language arts teachers stated that their school did not have a formal professional development plan that they were aware of, but felt in their view it was not needed because the English 10 teacher was the unofficial professional development leader.

> Our English 10 teacher pulls articles from Phi Delta Kappan and Marzano and gets us copies and we discuss it at lunch, we all eat at the same time. She makes us read the stuff and gets on us if we don't. We discuss our teaching practices at lunch, we don't complain at lunch like most teachers, she (the English 10 teacher) won't let us.

The language arts teachers reported that they met about twice a month on their own after school to discuss student progress and help each other with plan lessons.

> All the teachers do not collaborate on lessons, but we (the language arts teachers) do. We meet a few times a month on our own and help each other with what to do next with our students, and sometimes we grade essays together.

The language arts teachers reported that they approached literacy development in students by focusing on students reading short selections, immediately checked for students' understanding of central themes, then quickly required students to write about it. "We do one-on-one interviews with students also and make them talk to us about their view of the reading while students write, we pick up on concerns with comprehension quickly going that route."

The language arts teachers reported that a few teachers focused on literacy in their content areas outside of language arts but not many had stated literacy across the curriculum was not a part of their teaching culture.

> We have one teacher in social studies that really helps us on reading and writing, but most of the teachers like the idea but in reality do not implement it. We had a principal six years ago try to force it on everyone and most of them just fought it.

The language arts teachers reported they tried to address student buy in by being a cheerleader, talked about the world economy, and incorporated student choice where possible.

> We try to be cheerleaders and encourage, a lot of our students have plenty of negative at home. We try to bring in topics and reading we know students are thinking about, like love or current events issues. We try to talk about the need to do well in language arts to succeed in college, but it is hard here because some kids do not leave here. When all else fails, we focus on not accepting failure or opting out of doing required work. We just refuse to let kids fail here, we are small enough that kids can't hide. They all have a homeroom study hall and if kids are not working in our class we just go into their homeroom and harass them to do the work in there, we don't allow zeros on assignments. Plus they are all afraid of our English 10 teacher and she hunts them down, she sets the tone on that.

Accountability for teachers regarding literacy does not come from administration but comes from a commitment among the three language arts teachers and their leader in English 10. "She (English 10 teacher) insists on certain things, like writing development, she holds us more accountable than the principal does."

The language arts teachers elaborated further on their writing program and the emphasis on essay writing that is similar to what is asked of students on the English 10 exam.

> We expect 1,000 to 1,200 word essays in Grade 9, and 1,500 words in Grade 10. We start the year with this and chunk the first few to help kids with how it should flow from intro to body to conclusion. We don't just wait for the month before the exam, we do it all the time.

Finally, the language arts teachers reported that they taught grammar only within the context of student writing and sometimes graded essays together when they met after school and discussed common student writing errors and planned together, even though each of the three taught different grades.

The other content area teachers and elective teachers reported in their interviews that no one had defined literacy except the English 10 teacher for the school.

> We had a principal that tried to make us do some things a few years back, but it did not take. Our English 10 teacher gives us stuff to read and has been talking about common core, we see we could all help with literacy but most of us focus on our content.

A social studies teacher stated that she tries to incorporate reading and writing within her content area.

> I talk to the language arts teachers a lot. I have students read primary source documents often and write about the themes they are reading and compare it to modern day issues, so I guess I have defined literacy that way.

When asked why the school's language arts scores were so high despite a high-poverty rate, the non-language arts teachers unanimously said that it was because of the English 10 teacher and the structure of her duties at the school.

> She has been teaching the same thing for over 30 years, and she only teaches English 10 half day. She gets to write grants and plan the other half. Some of us don't like it but since our scores are so high no one wants to touch it.

Non-language arts teachers reported collaboration occurred at times, but many of them preferred to focus on their content areas. "Our English 10 teacher brings us stuff to read at lunch, we do talk to her about it, but none of us meet away from lunch, but the English teachers meet, they meet after school." They also reported that the school had done little to address student buy in previously beyond meetings in the principal office with troubled students and an occasional announcement, but the new principal is trying.

> Our last principal just stayed in his office, our new principal is trying to say motivational things on announcements but it has not been about literacy very much. But she has been meeting with struggling students weekly and eating lunch with them in her office.

Finally, the non-language arts teachers stated they were aware of the coming literacy expectations with content areas connected to Common Core, but few outside of the social studies teacher had fully implemented the ideas.

The principal of School A was the only administrator for this school and received some assistance from a half-time counselor that also taught half-time. She reported that she was trying to promote literacy and the new Common Core standards emphasis on it through a school improvement committee that met monthly.

> Ten of the 17 teachers are involved on the school improvement team and we meet monthly. I am trying to encourage and prepare for more emphasis on everyone helping with literacy, but there is some resistance connected to a past principal. I would like to see heavy emphasis on reading non-fiction.

The principal believed the school's language arts scores were strong because of the English 10 teacher, her schedule, and how often the language arts teachers met.

> Our English 10 teacher is a star. She has a relentless pursuit for how the students perform on the test and takes it personally, like it is her Super Bowl. And she has a lot of student interaction in her class, they sit in circles without rows.

The structure of the schedule of the English 10 teacher was reported as a contributing factor to the school's success.

> Teachers usually complain they have no time to think during the day, well this one (English 10 teacher) actually does have time to plan and think about student progress. Our district thought about adding to her class assignments due to budget and perception issues but I fought that off.

The principal reported the time was used to plan professional development for colleagues also when she was not writing grants for the district. "She recently planned a session for our teachers on helping students discuss their reading thoughts together and shared a format on how to accomplish that, it encourages growth and collaboration."

Professional development recently had also included an outside consultant who visited to encourage having students write formal responses to all their reading, but she had not followed up with teachers or required implementation. "I am just trying to plant ideas right now."

The principal further reported that building student buy in was a critical goal and that she had begun to incorporate some things.

> Right now I am focusing on positive decision making and caring about self, others, and our school. I eat lunch with some struggling students each week. I would like to emphasize literacy connections to the real world but have not gotten this going yet.

Finally, she stated that personal connections with students were a school theme and may contribute to the language arts success of the school.

> We are small enough that we know the students well and tap into that. The parents went to school here also, so they know us and generally support us. We use homeroom to talk to students a lot and cajole them to give their best effort.

School B

School B was a medium sized, rural middle school in Indiana with a student population of 349 students in Grades 6-8. Eighteen teachers were employed in School B, with 10 teachers who had taught 20-plus years, two teachers had taught 16-20 years, three teachers had taught 6-10 years, and no teachers had taught five years or less (Indiana Department of Education, 2014). Twelve of the 18 teachers participated in a survey regarding literacy instruction in their school, and 12 of the 18 teachers participated in the on-site interview.

School B had a student population of 97% White students and less than 1% English language learners, 37% received free/reduced lunch, and 10% of students received special education services. School B Grade 7 and 8 students posted pass rates of 82.5% on the Indiana ISTEP exam in language arts in 2012-2013, and 85% passed in 2011-2012. School B earned an A-rating under Indiana's accountability law for three consecutive school years, from 2010-2011 to 2012-2013. School B also earned bonus points in the Indiana accountability model for student growth in language arts for both the top 75% of students and lowest 25% of students in 2011-2012 and 2012-2013 (Indiana Department of Education, 2014). School B posted a three-year average residual difference between its predicted English End of Course exam scale score and actual score of +19.66, and scored on average 19 points higher than was expected when taking its percentage of free/reduced lunch students into account (Table 2).

School B survey participants included four language arts teachers, two social studies teachers, one science teacher, four math teachers, and one elective teacher. School B survey results reported that all four language arts teachers stated that they felt literacy instruction had been defined to an extent. Five teachers stated literacy instruction had been somewhat defined, two teachers stated literacy instruction had not been defined at all, and one teacher skipped the question. Nine of the 12 teachers surveyed shared that they had "bought in" that they can impact literacy development of students either to an extent or to a great extent. Six of the 12 teachers reported that they perceived their teaching staff had either only "somewhat" bought in that literacy development can be impacted through their content area. Eight of 12 teachers shared participating in occasional or no professional development opportunities related to reading, writing, or vocabulary instruction, with three teachers (in language arts) reporting participation in professional development related to reading, writing, and vocabulary often or all the time. Six of 12 teachers reported having conversations about literacy instruction with colleagues and sharing successes to a great extent (including all language arts teachers), and five teachers reported only occasional conversations about literacy or not at all. Five of 12 teachers surveyed that their school addressed student buy in occasionally, and two other teachers surveyed indicated the school addressed student buy in not at all. Four teachers reported (all language arts) that the school addressed student buy in for literacy development often.

When surveyed about addressing student motivation for literacy development in their content area by establishing purpose, student topics of interest, and cultivating student opinion seven of 12 teachers reported doing this often or all the time. When surveyed about the extent to which their content area was used to develop writing skills such as persuasive or informational writing, five of 12 teachers answered they occasionally focused on this area or not at all. Six

teachers shared they used their content area to develop writing skills. The three language arts teachers reported developing writing skills all the time. Seven of 12 teachers reported occasionally or not at all working with students on vocabulary development by using Marzano's six steps of effective vocabulary instruction. Seven of 12 teachers had students identify similarities and differences with content specific vocabulary either not at all or occasionally. Six of 12 teachers reported having students read content in their subject area by taking present reading levels into account either not at all or occasionally, and the four language arts teachers reported having students read selections based on present student reading levels all the time.

Finally, nine of 12 teachers reported that someone checked to ensure teachers were integrating literacy strategies in their content area either occasionally or not at all. And eight of 12 teachers reported the administration of the school had not sought teacher input regarding how and why to focus literacy instruction in all content areas, or had occasionally. Two teachers reported administration sought input for how and why to focus literacy instruction often, and one teacher reported this occurred all the time.

Twelve teachers from School B participated in the on-site interview. Four language arts teachers were interviewed as a group. The other eight teachers were interviewed in two groups of four.

The language arts teachers discussed during on-site interviews that literacy instruction had been defined by themselves as the reading and writing standards as found in the Indiana academic standards. When asked why their schools language arts ISTEP scores were 20 points higher than what had been predicted for the last three years, the language arts teachers discussed their collaboration as a group, use of data to identify student skill weakness, scheduling flexibility, and a daily 45-minute SSR program.

> We have a common prep period daily that we use to meet together one to two times per week, and we eat lunch together every day. We use the lunch time to plan together and help solve problems, we all have families and do not have time to meet after school. We discuss strategies and common issues we see students having. We try to be productive with the lunch time because we are busy. We also have it worked out that whenever we need additional time for a difficult concept we work it out to keep our students longer, and if the students miss science or social studies we make up the time with that subject another time or borrow it from SSR time. We typically ask for extra time for writing follow up with students a few times a month, sometimes weekly. We also use a lot of data from Acuity, our principal is good at that and gets us the reports, and we talk about them during our prep and lunch meetings and our instruction is focused on what we see in the data, and we try to decide that together, even if the data is about a student we are not working with right now. And we have 45 minutes of Sustained Silent Reading every day. We borrow from this time some, but our kids read constantly things they pick to read and it is a part of our culture that has to be a part of it. Last thing is if all else fails we have a remediation program our principal runs of the data he collects, that usually helps too.

Regarding professional development, the language arts teachers stated it was almost non-existent in their school. "Our principal does not focus on that and he asks us to handle that ourselves, he does get us lots of student data though. Our corporation does not spend funds on professional development." The teachers did report some recent efforts to get information about literacy instruction to their colleagues.

> Our collaboration is among ourselves, the rest of our faculty focuses on their content areas. We have sent them some articles on reading informational text for common core, hoping to get conversation going but it has not gotten very far.

The language arts teachers reported that they focused on reading informational text and helped students compare/contrast major themes in non-fiction and did not worry about memorization or recalling simple facts anymore. "We spend most of our time helping students identify major themes in their reading, then we immediately connect it to written response, and we don't stress over kids remember every detail from every chapter or every story anymore."

It was further shared by the group that they did not allow students to fail or opt out.

> We don't give them a choice to fail, we just don't allow it. But we don't hand out grades they did not earn either. We make kids rewrite weak essays and pull them at lunch or keep them after school to finish important work. We also talk at lunch about what might reach a kid, what their interests are, if their parents will help us, stuff like that. We find a way, we have been an A school for so long we don't want to let it slide, but really, we would be this way whether they gave us a grade or not.

Regarding addressing buy in, the language arts teachers discussed that the school did nothing specific to address student motivation.

> It is a given here, the community supports us and expects kids to do what they are asked to do. Really, we do less motivating and more expecting and following through on our expectations. We do make sure the students are reading things they are interested in, that is a big one. We can't get kids to focus if we read stuff they don't like.

The language arts teachers sought out new approaches and ideas through regional workshops.

> We don't read a lot of stuff about teaching research, but we do attend a workshop or two each year or so related to writing or reading. When we go we decide what we need to bring back and we commit to implementing something. We keep our conference stuff in a specific place in our work area where we meet and eat lunch. We rely on conference presenters to tell us the latest, but we listen to them and try to implement.

Finally, the language arts teachers discussed follow up and expectations at their school,

> Our principal just trusts us, we do not report much to him, but he looks at student data in Acuity and ISTEP, he does discipline most of the time, we are lucky he spends time with the data. He really does not expect the rest of the staff to help with reading and writing, and a few of them try but most focus on their content areas.

Science, social studies, math, and electives teachers were interviewed together. When asked about literacy instruction, their role in its development for students, and their understanding of it and what was expected, comments included,

> We see reading comprehension issues in our content areas, but we are not really thinking of it as literacy instruction. We are just trying to get kids to grasp our content. No one has really defined literacy instruction for us or told us we have to focus on it, we try to deal with our content.

One teacher stated that an across-the-curriculum emphasis on writing was attempted without success.

> Six or 7 years ago we had a principal try to get all of us to teach writing in our classes and grade essays a certain way but it did not work, we just did not do it and it went away. Most of us see that as the language arts teachers' jobs and they do it well here we don't need to interfere.

Regarding professional development and instructional strategies for literacy, it was stated,

> Our district has after school professional development sessions we can attend, but most of them are about technology integration, not the stuff you are talking about (literacy). We get a stipend if we attend. No one has showed us strategies to help kids read our content, this just has not been a point of emphasis.

Two social studies teachers stated the following,

> We try to incorporate reading and writing in what we do to learn social studies content. We talk to our ELA teachers some. We make an attempt but no one has really asked us to, except the ELA teachers have given us some stuff to read about the concept lately.

The School B principal was interviewed separately. The principal was the only administrator in the building and was responsible for all administrative tasks, including overseeing middle school athletics. The principal stated regarding literacy instruction,

> I have not taken the time to promote this topic with our faculty. Our language arts teachers do a fine job and our school letter grade proves it. They have even earned the bonus point for student growth. I don't have time to micromanage them anyway. I am the only administrator and I have to do everything, even athletics. A previous principal tried this and the staff hated him for it. I do make sure students that are behind in reading get remediation. I run the data from Acuity and ISTEP and get it to the language arts teachers and our remediation teacher. We identify bubble students from ISTEP data, if they were within 20 points of passing above or below all their teachers know it and they usually get remediation also. We have a computer program we use in remediation to boost reading levels; that is a key for us. We do take a lot of pride in our school letter

> grade and we have done well over the years. But as far as literacy instruction outside of our language arts teachers doing their job and our remediation program, we just have not worried about everyone teaching writing or integrating it, that is the language arts teachers' role.

School B's remediation program was shared by the language arts teachers, other content area teachers, and the principal as a part of the reason for their success. The remediation teacher shared how the basics of the program works.

> Students are identified by our principal based on Acuity and ISTEP data. I have about five to seven students per period. I get a list of weak areas for each student based on Acuity or ISTEP. We did Read 180 prior to this year but we dropped it, I think due to funding but also how much time it took. I am worried our students in here will not do as well now. This year I am trying to mirror the Read 180 approach on my own but do not have online reading content for students to listen to like Read 180, so we will see.

School C

School C was a large sized, urban middle school in Indiana with a student population of 723 students in Grades 6 to 8. Thirty-six teachers were employed in School C, with 13 teachers who had taught 20-plus years, 11 teachers had taught 16-20 years, one teacher had taught 6-10 years, and 11 teachers had taught five years or less (Indiana Department of Education, 2014). Twenty five of the 36 teachers participated in the survey regarding literacy instruction in their school, and 23 of the 36 teachers participated in the on-site interview.

School C had a student population of 72% White students, 6% Hispanic and English language learners, 9% African-American students, and 12% multi-racial, 75% received free/reduced lunch, and 23% of students received special education services. School C Grade 7

and Grade 8 students posted pass rates on the Indiana ISTEP Exam in language arts of 75% passed in 2012-2013, and 75% passed in 2011-2012. School C earned an F-rating under Indiana's accountability law in 2010-2011, but improved to an A-rating in 2011-2012 and C-rating in 2012-2013. School C also earned bonus points in the Indiana accountability model for student growth in language arts for both the top 75% of students and lowest 25% of students in 2011-2012 (Indiana Department of Education, 2014). School C posted a three-year average residual difference between its predicted English End of Course exam scale score and actual score of +22.81 and scored on average 22 points higher than was expected when their percentage of free/reduced lunch students were taken into account (Table 2).

School C survey results revealed that the language arts teachers (six total) all stated that they felt literacy instruction had clearly been defined, and six of 25 teachers reported literacy instruction had been defined to an extent or to a great extent for all teachers. Two teachers reported literacy instruction had not been defined at all, and 11 teachers reported literacy instruction had been somewhat defined. Eleven of the 25 teachers shared that they had "bought in" that they can impact literacy development of students either to a great extent, and seven teachers stated they had "bought in" that they could impact student literacy development to an extent. However, six of the 25 teachers stated that they perceived their teaching staff had either only "somewhat" bought in or had not bought in at all that literacy development could be impacted through their content area. Six of 25 teachers reported only somewhat buy into their ability to impact literacy development, and one teacher stated they had not bought into being able to impact literacy development at all. Thirteen of 25 teachers surveyed reported participating in occasional development opportunities related to reading, writing, or vocabulary instruction, and the six language arts teachers stated they participated in these activities all the time. Six teachers

answered that they did not participate in professional development connected to literacy instruction. The six language arts teachers shared having conversations about literacy instruction with colleagues and sharing successes to a great extent, and 12 teachers reported only occasional conversations about literacy, and five teachers reported not at all. Thirteen of 25 teachers reported that their school addressed student buy in somewhat, two other teachers reported the school addressed student buy in not at all. Seven teachers stated the school addressed student buy in for literacy development often, and three teachers stated the school addresses student buy in for literacy development all the time.

When surveyed about the extent to which their content area was used to develop writing skills such as persuasive or informational writing, 14 of 25 teachers reported they occasionally focused on this area or not at all. The six language arts teachers reported developing writing skills all the time. Twelve of 25 teachers reported occasionally or not at all working with students on vocabulary development by using Marzano's six steps of effective vocabulary instruction, and 13 of 25 teachers reported doing this often or all the time. Eighteen of 25 teachers reported having student identify similarities and differences with content specific vocabulary either often or all the time. Seventeen of 25 teachers reported having students read content in their subject area by taking present reading levels into account either often or all the time.

Finally, 17 of 25 teachers reported that someone checked to ensure teachers were integrating literacy strategies in their content area either occasionally or not at all. And 14 of 25 teachers reported the administration of the school did not seek teacher input regarding how and why to focus literacy instruction in all content areas, or had occasionally. Eleven of 25 teachers

reported administration sought input for how and why to focus literacy instruction often or all the time.

Twenty five teachers from School C participated in the on-site interview. Six language arts teachers were interviewed as a group. The other 19 teachers were interviewed in three groups of five and a group of four.

The language arts teachers at School C shared that literacy instruction had been defined in their school to be student mastery of critical power standards related to writing, reading, and vocabulary. "We looked at the standards with a literacy coach we have and identified the 'power standards' or most tested reading and writing skills. The literacy coach was cut this year in a budget move however."

When asked why the school's test scores were higher than typical, the language arts teachers discussed high levels of commitment, collaboration/sharing of the work, and time built in the master schedule daily to work on essential language arts and math skills in addition to course time with those subjects.

> We have been deeply concentrated on our mission of improving the school the last three years. A literacy coach was hired and began meeting with us. We identified power standards as a group, wrote assessments together to see where students were progressing, reviewed the assessments together, and we planned lessons together taking student needs and interests into account. We have been working 20-30 hours a week outside of school time planning together and reviewing data from both our own assessments and Acuity data. We try to solve our own problems and plan curriculum as a group. We met for hours with our literacy coach who would share strategies with us to try. Close Reading strategies in particular to support comprehension and identification of key themes. We

> have been here past 8pm often with the literacy coach sharing resources and ideas. We were and F building until we started the time after school with a literacy coach. It changed right away, and another consultant helped us write short cycle assessments to get data on student progress quickly. To be honest, we have not spent as much time collaborating this year since the literacy coach is gone, and it feels like we are coasting and living off of our past work. We are worried that will not work forever.

Professional development at School C included focus on close reading strategies to help students break up reading text into smaller parts, make notes in the margins, and pre-learn vocabulary.

> All teachers got this training from our literacy coach, and then we have a homeroom period at the end of the day. Some teachers are assigned to review key math skills including fractions and decimals, and some teachers are assigned to work on reading or writing fundamentals. This includes every teacher, not just language arts or math. The literacy coach would model a strategy then we would use it with students the next week, but that is not happening this year and people are starting to use the homeroom time as a regular study hall. And teachers are telling us they are using literacy strategies less in class due to the lack of follow up.

Non-language arts teachers shared that many of them tried to support literacy development.

> The staff is very willing to support reading and writing skills. We are student focused and we know this is what they need. We had a literacy coach that worked with us on literacy strategies, but that got cut from the budget. We have talked about many of us using the literacy strategies less due to a lack of follow up.

The language arts teachers discussed a shift in philosophy in how they used reading materials to develop student literacy.

> I used to focus on students mastering the novel–the characters, what happened when to whom, things like that. Now I use a novel like *The Outsiders* to teach key power standards like identification of theme or inference development. I don't worry as much about students filling out study guide and remembering when PonyBoy fought someone. I am more worried about students identifying what PonyBoy represents, the larger themes in the novel, and their ability to tell me how it is like their own life and how it is different.

The language arts teachers also commented on the nature of their collaboration.

> We are very straightforward when we work together after school. Our expectations of each other are high. We are willing to make each other mad. If someone complains about a student, we tell them to come up with a solution or strategy. If we don't like an idea or adaptation of a strategy proposed in the group, we tell them and why. A teacher got a transfer to another school because she could not handle the level of honesty. We even confront each other about what students say—if a student complains about a teacher and we think it may have merit, we go confront the teacher.

Regarding student buy in, all teachers shared this was a focus point of the teachers and administration.

> The literacy coach talked to us about the need to not only teach literacy but sell its larger need. We had a consultant show us how to get students keeping track of their own data and setting progress goals on identified power standards. Our administration is on the intercom a lot promoting student improvement and responsibility. And we incorporate a

lot of student choice in what we read. I think it is a part of why we have been successful, more students care.

School D

School D was a large-sized, suburban high school in Indiana with a student population of 1,127 students in Grades 9-12. Sixty one teachers were employed in School D. A total of 22 teachers had taught 20-plus years, five teachers had taught 16-20 years, 12 teachers had taught 6-10 years, and 11 teachers had taught five years or less (Indiana Department of Education, 2014). Thirty-five of the 61 teachers participated in a survey regarding literacy instruction in their school, and 38 of the 61 teachers participated in the on-site interview.

School D had a student population of 85% White students, 9% English language learners, 35% received free/reduced lunch, and 12% of students received special education services. School D Grade 10 students posted pass rates on the Indiana End of Course exam in language arts of 87% in 2012-2013, pass rates of 88% in 2011-2012, and pass rates of 84% in 2010-2011. School D had earned an A-rating under Indiana's accountability law for three consecutive school years, from 2010-2011 to 2012-2013. School D also earned bonus points in the Indiana accountability model for student growth in language arts for both the top 75% of students and lowest 25% of students in 2011-2012 and 2012-2013 (Indiana Department of Education, 2014). School D posted a three-year average residual difference between their predicted English End of Course exam scale score and actual score of +38.09, and scored on average 38 points higher than was expected when the percentage of free/reduced lunch students was taken into account (Table 1).

School D survey results revealed that four of six language arts teachers stated that they felt literacy instruction had clearly been defined to an extent, two language arts teachers reported

literacy instruction had been somewhat defined, 19 of 29 teachers reported literacy instruction had not been defined at all, and 10 of 19 teachers stated literacy instruction had been defined somewhat. Eight of the 35 teachers reported that they had "bought in" that they could impact literacy development of students to a great extent, and three teachers stated they had "bought in" that they could impact student literacy development to an extent. However, 24 of the 35 teachers shared that they had not "bought in" that they could impact literacy instruction. Twenty-eight of 35 teachers replied that they perceived their teaching staff had either only "somewhat" bought in or had not bought in at all that literacy development could be impacted through their content area. Six of 35 teachers (all language arts teachers) reported participating in occasional development opportunities related to reading, writing, or vocabulary instruction, and the six language arts teachers stated they participated in these activities all the time. Twenty teachers answered that they did not participate in professional development connected to literacy instruction. The six language arts teachers reported having conversations about literacy instruction with colleagues and sharing successes to a great extent, 12 teachers reported only occasional conversations about literacy, and 17 teachers reported not at all. Twenty of 35 teachers reported that their school addressed student buy in somewhat and 10 other teachers reported the school addressed student buy in not at all.

When surveyed about the extent to which their content area was used to develop writing skills such as persuasive or informational writing, 28 of 35 teachers reported they occasionally focused on this area or not at all. The six language arts teachers reported developing writing skills all the time. Twenty-six of 35 teachers reported occasionally or not at all working with students on vocabulary development by using Marzano's six steps of effective vocabulary instruction, and eight of 35 (six teachers being language arts) teachers reported doing this often

or all the time. Eight of 35 teachers reported having students identify similarities and differences with content specific vocabulary either often or all the time. Twelve of 35 teachers reported having students read content in their subject area by taking present reading levels into account either often or all the time.

Finally, 34 of 35 teachers reported that someone checked to ensure teachers were integrating literacy strategies in their content area either occasionally or not at all. All 35 teachers reported the administration of the school had not sought teacher input regarding how and why to focus literacy instruction in all content areas, or had occasionally.

Thirty-eight teachers from School D participated in the on-site interview. Six language arts teachers were interviewed as a group with two special education teachers that co-taught and supported student language arts. The other 32 teachers were interviewed in five groups of six teachers.

The language arts teachers of School D shared during the on-site interview that four years prior the school's language arts tests scores were the lowest in their area.

> It became our mission to figure this out and help students improve. The first thing we did was set up a Response to Intervention (RTI) program. Students that failed language arts in middle school were identified and placed in a developmental reading class as step one in the RTI process. We really started taking ownership to bridge the deficiency gap.

Literacy instruction was not formally defined, but language arts teachers went to training on approaches to help struggling students with reading and writing skills. The training became the basis for a common language about literacy instruction.

> Our culture for teaching language arts here became very much about strategies—how were we specifically going to help students write better and comprehend what they were

reading. We were willing to try anything and share with each other what worked and what did not. We started working with students on their reading and thinking voice and helping them organize and focus their thoughts while they read. And we worked on helping students connect the readings to their larger world context. In this way we started defining literacy as how we help students better read and write.

When asked why School D had language arts test scores higher than was expected, the language arts teachers discussed sharing/discussing strategies with each, deep commitment, and the RTI process led by the developmental reading class and an English Lab.

About the same time we went to training on strategies such as reading and thinking voice we started Professional Learning Communities here. Every Wednesday we get a full hour to share what we are doing. We meet and discuss strategies that are working and not working and changes we want to try. When we started meeting like this it changed everything. We used to just sit around and complain about kids, now we discuss strategies. We spend a lot of time talking with each other about high interest materials and reading selections and what kids might care about and connect with, we really want to avoid student boredom. We just run Google searches if we want to find some help. We did not feel alone anymore or wondering who was not pulling their weight. Our culture really has become to keep improving. And the collaboration can be intense. We had one teacher that would not let go of traditional novels that kids did not care about anymore. The debates about boring kids versus connecting them to readings was intense for a while. One teacher would not give up Fahrenheit 451, we told her she was nuts. She ended up retiring and did not want to get on board.

Developmental reading classes and English lab for students that failed English 9 set a foundation of RTI strategies to support struggling students and help improve testing success.

> Our department co-chairs teach our English Lab to all ninth graders that fail English 9. This is in addition to the students' regular English class. They take responsibility as leaders for re-teaching key skills to students, and the success rate is there. We just take deep responsibility. It takes a village to get a student to improve reading and writing and each member of the language arts department is a part of the village.
>
> We did not expect the developmental reading class to solve it all though. We got more serious about expectations in student performance. For example, we started demanding specific writing responses to reading pieces that included supporting evidence from the readings. We just make students do the work over and over until they gave us what we wanted. We talked about it at a PLC and got together on it. We all did it the same and the students started giving us writing with more backbone to it with specific examples.
>
> Another example is once a month we require a timed writing from a prompt that is typed in a word processor, like a testing situation, in which it has to be their best work with no spell checking, it is best draft from the start. We don't fail students who struggle with it, just leave the grade blank in the grade book and make them do it again until they get it right.

Professional development includes a combination of in-house training and being sent to conferences.

> It has been a nice mix here, trainers were brought here to teach us how to do PLCs. But we were also allowed to go each year to training on strategies for reading and writing improvement for students. We were able to go as a language arts department and discuss

> what we were going to implement right away as a group. Our district started planning after school sessions also and the deal is if we attend we don't have to do parent open houses any more. We prefer the after school professional development sessions."

Weekly collaboration was cited as a key piece of the school's success.

> When we were given weekly time to discuss our work and problems with students that is when everything got better. We felt pressure to share and discuss what was going on and go back and try what we as a group came up with. For example, we decided students were not going to get anything out of readings until we made sure they connected to the text. So we started really working on discussion techniques to promote and identify what connections students had to the readings, and we became more careful about choosing reading students might be able to better connect with.

Interviews with language arts and non-language arts teachers revealed that School D did not have a culture or expectation for literacy emphasis across the curriculum in all content areas.

> Our language arts teachers have really done well the last few years with reading and writing. We don't want to mess it up and we have not been trained in what they are doing, it is really their deal. Really our school has done nothing to address the importance of literacy except our language arts teachers meeting weekly to address it in their classrooms, and I think they were sent to some training. Our principal tried to start vocabulary focus in all classrooms with two words a week we all would focus on, it did not last long and there was no buy in.

Strategies for reading comprehension and writing response were found in the practices of the language arts teachers.

> We practice writing to a prompt twice a semester. We have taught kids a ton of strategies that are good learning practices, but also are test taking helpers. For example, our kids know how to self-edit their papers by crossing out words misspelled or not needed and writing the new word above. We also have kids read their writing in backwards order as that forces them to read it slowly to find mistakes. We also support reading of non-fiction with a lot of pre-teaching of key concepts and vocabulary. And we ask students to apply literacy terms to the readings and write out where they see a literary term in action in the margins. We use a lot of acronyms to emphasize best practice for students for writing and literary response."

All of the accountability related to literacy instruction comes from within the language arts department, not from the administration.

> Our administration really is not involved in our meetings and they do not check on our progress or implementation. We apply pressure to ourselves, the accountability comes from within. We even email a lot during the day, if a lesson or reading connection bombs we email the department during our prep and ask for ideas, we get into some intense email conversations about how to get kids more engaged.

Language arts teachers also shared that they used data to their advantage and varied activities after short mini-lessons to foster engagement.

> We don't waste time with what kids do not need. Our students take Acuity predictive tests. We pull the reports that show what kids need to pass state tests, it shows what the deficient skills are. We plan follow up lessons around data concerns that pop up. We run the reports and discuss in our collaboration. We then set up mini-lessons, after 10-12

> minutes we change up the learning activity. We can work on the same skills for a week, but do it in many ways in 10-12 minute doses.
>
> Finally, the language arts teachers shared the importance of the interview process.
>
> We insist on the entire department being a part of the interview for a new language arts teachers. As we changed our practices and collaborated more we had retirements. We are looking for weird people who want to share the work and will fight for what they want and disagree, but in the end will be flexible. We look for evidence of these traits and harass our administration to hire people with this mindset."

Two administrators for School D were interviewed together—the principal and assistant principal. They stated that they had not done much to encourage literacy across the curriculum or to define what it meant for staff and students.

> We will need to do more with Common Core coming, but we really have not asked teachers to focus on literacy. We tried a vocabulary focus a few years back and it died quickly. Our curriculum director sends our language arts teachers to training and they collaborate and do a lot together, but that is it. Our language arts teachers do a nice job.

Regarding why School D's language arts state test scores were higher than was expected, the administration stated,

> Our language arts teachers get all the credit. They started going to training for specific strategies for reading comprehension and writing. When that started our central office started pushing collaboration, and our language arts teachers bought in and starting meeting a lot and planning together. We had some retirements from folks that did not want to work that way, and we hired teachers that wanted to collaborate, and that is when our scores really took off.

The administration shared common strategies used by the language arts teachers that they had observed during formal teacher observations. "They use a lot of acronyms to remind kids of steps to complete when writing an essay or finding themes in a reading selection. Kids really seem to remember the acronyms."

Teacher buy in was not something the administration of School D had worried about.

> About five years ago the language arts department was challenged to improve by our curriculum director. They really responded, well, most of them did. They started meeting during our planned monthly and weekly early student release times. Then they started meeting on their own. In observations we started seeing a lot of similar approaches, acronyms, certain high interest articles for students to read, they started planning it together. The language arts teachers that bought into this ran off the ones that were not into the shared work and meetings, we really can't take the credit.

Regarding student buy in, the administration discussed encouraging teachers to focus on the need to pass state exams to finish high school and focus on college prep.

> We focus on testing prep in Grades 9 and 10 in language arts, and then in Grades 11 and 12 we focus on college prep. Our language arts teachers ask our students to knock out the state testing so we can focus on getting ready for college, some of our students respond to that thinking.

Section Summary

Definite themes emerged from the profiles of the four school participants. The participants' experiences showed a strong commitment to teacher collaboration and shared solving of student-learning problems. In particular, the language arts teachers of all four participants demonstrated a desire to plan how to best improve student reading and writing

together as a group, rather than in teacher isolation. The participants' experiences matched the research of a 2005 to 2007 study of New York City Kindergarten through Grade 5 teachers. Students in this study showed stronger improvement in math scores when their teachers reported consistent conversations with other teachers about math instruction (Lena, 2011). Second, the language arts teacher participants all shared a strong interest in cultivating student buy in, particularly when considering the types of reading materials students used to improve their reading comprehension. Great time and discussion was put into planning reading materials of a high interest nature, often with student choice being incorporated. The third theme found among the four school participants was that no one instructional method or approach to student learning of literacy was found, and none of the four participants had a strong culture for writing or reading across the curriculum. The culture for literacy learning was found in the language arts departments of the four participants, not in the school as a whole. Finally, it was found in all four participants examples of deep commitment among the teachers to take student improvement of literacy personally.

Theme 1: Teacher Collaboration

Teachers working together instead of in isolation to increase student achievement is a concept that emerged in the 1970s in studies dealing with school climate (Marzano, 2003). Studies in the 1980s began to report the nature of professional interactions between teachers as a part of "organizational climate" (Deal & Kennedy, 1983, p. 14). This concept evolved in the 1990s to be known as collegiality, or the manner in which teachers interact with one another (Marzano, 2003). Villani defined collegiality as "teachers who are supportive of one another. They openly enjoy professional interactions, are respectful and courteous of each other's needs" (as cited in Marzano, 2003, p. 61). The concept continued to evolve to mean a deeper form of

teacher-to-teacher support to share failures and mistakes, deepen respect, and share constructive analysis of practice and procedures to mutually improve and impact student learning through authentic professional interactions (Fullan & Hargreaves, 1996).

More recently the work of DuFour (2004) took the research on collegiality and developed the concept of a professional learning community, an approach that defines collaboration as

> a systematic process in which teachers work together to analyze and improve their classroom practice. Teachers work in teams, engaging in an ongoing cycle of questions that promote deep team learning. This process, in turn, leads to higher levels of student achievement. (DuFour, 2004, para. 14)

Marzano (2003) reported that schools would find a negative correlation between student achievement and teacher interactions that are based only on friendship, and a positive correlation between student achievement and teacher interactions based on professional discussion. All four schools in this study demonstrated levels of positive collaboration that would be consistent with research on the topic that points to student achievement. School A and B shared experiences with collaboration that centered on shared planning, discussion of professional articles and presentations, and the review of student performance. School A collaboration was led by a veteran language arts teacher who also had time built into the school day to research and plan things for the staff to review.

> Our English 10 teacher pulls articles from Phi Delta Kappan and Marzano and gets us copies and we discuss it at lunch, we all eat at the same time. She makes us read the stuff and gets on us if we don't. We discuss our teaching practices at lunch, we don't complain at lunch like most teachers, she [the English 10 teacher] won't let us.

School B collaboration was team approach that centered on common prep that was built into the master schedule.

> We have a common prep period daily that we use to meet together one to two times per week, and we eat lunch together every day. We use the lunch time to plan together and help solve problems, we all have families and do not have time to meet after school. We discuss strategies and common issues we see students having.

Schools C and D demonstrated an even deeper level of collaboration that exhibited professional discussions and challenges of current practices, debate and implementation of new approaches to working with students on their literacy development, and extra time spent working together to solve and plan for student learning issues that went beyond the traditional bell schedule or school planned planning time. The following quote from School C highlighted their commitment to collaboration and the impact on literacy practices. The language arts teachers also commented on the nature of their collaboration.

> We are very straightforward when we work together after school. Our expectations of each other are high. We are willing to make each other mad. If someone complains about a student, we tell them to come up with a solution or strategy. If we don't like an idea or adaptation of a strategy proposed in the group, we tell them and why. A teacher got a transfer to another school because she could not handle the level of honesty. We even confront each other about what students say, if a student complains about a teacher and we think it may have merit, we go confront the teacher.

School D implemented a level of collaboration that was also combined with locally prepared professional development that led to an examination of practices, as captured by the following:

> About the same time we went to training on strategies such as reading and thinking voice we started professional learning communities here. Every Wednesday we get a full hour to share what we are doing. We meet and discuss strategies that are working and not working and changes we want to try. When we started meeting like this it changed everything. We used to just sit around and complain about kids, now we discuss strategies. We spend a lot of time talking with each other about high interest materials and reading selections and what kids might care about and connect with, we really want to avoid student boredom. We just run Google searches if we want to find some help. We did not feel alone anymore or wondering who was not pulling their weight. Our culture really has become to keep improving.

Recent research, both in the qualitative and quantitative settings inside and outside of education, point to increased levels of achievement and productivity among schools and organizations that practice high levels of collaboration and a shared sense of working together to achieve greater goals. A 2007 study conducted in an urban, western New York school district studied student achievement among student groups whose teachers participated in collaborative lesson planning and students whose teachers taught in isolation. The study found increased levels of student achievement, both on assessments and grades, in students who worked with teachers who collaborated when planning lesson design and monitoring of student progress (Roe, 2007).

Daniel Pink, in his 2007 book *Drive: The Surprising Truth About What Motivates Us*, studied the concept of motivation and purpose as a foundational quality of what makes businesses more profitable than others. A qualitative reference for what to look for in successful organizations was described as follows:

> That's the thinking behind the simple and effective way Robert B. Reich, former U.S. labor secretary, gauges the health of an organization. He calls it the "pronoun test." When he visits a workplace, he'll ask people employed there some questions about the company. He listens to the substance of their response, of course. But most of all, he listens for the pronouns they use. Do the workers refer to the company as "they" Or do they describe it in terms of "we?" "They" companies and "we" companies, he says, are very different places. (p. 137)

Evidence of *we* schools, both in terms of interview data and survey results, was found in all four schools in this study. Shared, collective effort to identify student learning issues and collective effort to identify and implement best practice solutions was a common theme of the four schools in this study.

Theme 2: Cultivating Student Buy-In Through High-Interest Reading Materials

All four school participants shared the necessity to work with students on critical reading comprehension skills with reading materials that grabs student attention, sparks interest, and includes relevant content that connects with today's student as relevant or high interest. Often it is a challenge to get students to connect with secondary-level content reading, particularly when reading content in areas like science and social studies occurred before students were born (Tovani, 2000). When students do not have any background knowledge about a particular topic it can be very difficult for the student to make connections to the reading (Irvin et al., 2007)). Students who struggle to make connections with reading often confuse the difference between personal knowledge and personal experience (Tovani, 2000). Personal knowledge is any information a student has gained about a topic through books, movies, stories, or other sources of learning about a topic. Often students know more about a topic than they realize (Tovani, 2000).

Personal experience is information students have gained from events in their lives (Schmoker, 2011). Students often struggle to connect to text subjects in which they do not have personal experiences (Irvin et al., 2007). A critical step in helping students connect to text, thus helping students be in a better position to engage with and comprehend the reading, is to help students find areas that they do have in common with the text, especially through personal knowledge (Tovani, 2000). Another step in helping student connect with text for reading is to carefully select content that will spark student interest and inform student opinion (Schmoker, 2011).

The four schools in this study all demonstrated great interest in ensuring students were finding ways to connect to text and carefully selecting reading materials that spark student interest through student choice in the reading or cultivating informed student opinion through the reading. School A presented their focus on connecting reading materials to modern day topics their students are dealing with, like love. "We try to be cheerleaders and encourage, a lot of our students have plenty of negative at home. We try to bring in topics and reading we know students are thinking about, like love or current events issues."

School B showed great concern for helping students focus on reading through materials their students would enjoy getting involved in. "We do make sure the students are reading things they are interested in, that is a big one. We can't get kids to focus if we read stuff they don't like."

School C shared evidence of tapping into the research of Schmoker regarding connecting informed student opinion to the selection of reading materials. Student choice was also given to students as a part of the process of identifying reading materials to use with students.

> Our administration is on the intercom a lot promoting student improvement and responsibility. And we incorporate a lot of student choice and developing student

opinion based on what we read. I think it is a part of why we have been successful, more students care.

School D shared that they were very concerned with ensuring students were not fighting boredom as they read. The discussion of what students might connect with in their reading was often a topic of planning and collaboration.

We used to just sit around and complain about kids, now we discuss strategies. We spend a lot of time talking with each other about high interest materials and reading selections and what kids might care about and connect with, we really want to avoid student boredom. We just run Google searches if we want to find some help.

Theme 3: Variety of Instructional Methods, Lack of Across-the-Curriculum (Culture)

This study sought to identify practices and approaches for literacy instruction at the secondary level. The four school participants employed a variety of approaches to reading comprehension and writing development. The interview data suggested each school employed a different approach to reading comprehension development that came out of language arts teacher collaboration and what students at that school needed, but all approaches employed by the four school participants were a part of best practice instruction. For example, School A focused on chunking reading selections into smaller parts and immediately checking for student understanding of what they read. School B employed compare/contrast activities with students after they read to see if students could connect reading themes to other concepts or recently read ideas. School C implemented a variety of close reading strategies that are meant to provide constant support to students. Close reading strategies used by School C included marking text in the margins, quick note taking of themes in the reading, and pre-teaching of key vocabulary skills. School D taught students a collection of acronyms that helped students remember key

concepts for writing essays or steps to help students identify themes in reading. All of the instructional methods used by the four school participants are best practice methods, but a common instructional method that cannot be found in all four school participants.

A secondary question of this study included whether across-the-curriculum approaches in either reading or writing would be a common approach among high-performing secondary schools in language arts. The across-the-curriculum approach is getting great attention in literacy development. The national Common Core standards movement has employed literacy standards and expectations for science, social studies, and technical subjects (Common Core State Standards, 2012). Implementing writing across the curriculum has been a key theme of emphasis in the work of literacy experts (Maxwell, 1996; Schmoker, 2011). Reading comprehension focus across the curriculum has also been emphasized in the literacy research of Irvin et al. (2007) and Schmoker (2011).

Schools A, B, and D did not have a literacy culture with an across-the-curriculum emphasis. Survey and interview data supported this reality. School A had a social studies teacher that did use the content to emphasize reading comprehension, but the faculty as a whole did not embrace this idea. School A survey data started with eight of nine teachers who reported they believed they could impact literacy through their content area either to an extent or great extent. However, other survey questions for School A showed implementation of literacy across-the-curriculum strategies was not occurring. Six of nine teachers reported they perceived their colleagues had not bought into literacy development, despite eight of nine teachers who said they had bought into literacy development. Survey questions regarding teacher implementation of literacy strategies for vocabulary, writing persuasively, and reading content preparation based on student reading levels revealed over 50% of the faculty in each case had not

implemented these approaches at all. School A did show in the survey data high participation for literacy development among the language arts teachers.

Interview data for School A showed that a previous principal attempted to encourage across-the-curriculum literacy, but few implemented it, and most teachers focused on their content.

> We had a principal that tried to make us do some things a few years back, but it did not take. Our English 10 teacher gives us stuff to read and has been talking about common core, we see we could all help with literacy but most of us focus on our content.

All four school participants demonstrated strong literacy cultures among the language arts teachers at each school. Survey and interview data were consistent that teachers outside of language arts at Schools A, B, and D did not implement literacy development within their content, and there had been no emphasis at these schools to do so.

School C had some evidence of across-the-curriculum attempts to embed literacy development during a homeroom time but survey and interview data showed this had not sustained. School C had a literacy coach that was replaced by a data coach one year before my interview session. School C had been in the habit of teaching literacy strategies to students during a homeroom/study hall time. The literacy coach modeled the strategy for the staff, and the staff shared the strategy with students during an activity in homeroom. This was not embedding literacy within content areas, but promoting literacy during a stand-alone time. The practice of promoting literacy skills during homeroom stopped during the year of the interview with School C. Also, nothing in the survey or interview evidence indicated these literacy strategies were embedded within content areas. For example, 11 of 25 teachers interviewed at School C bought in that they could impact literacy development within their content area, and six

of these teachers were language arts teachers. Fourteen of 25 teachers reported that they did have students write persuasively within their content area, for example, and six of these teachers were language arts teachers.

However, interview data showed literacy emphasis school-wide faded as the time without a literacy coach to emphasize these areas passed.

> The literacy coach would model a strategy then we would use it with students the next week, but that is not happening this year and people are starting to use the homeroom time as a regular study hall. And teachers are telling us they are using literacy strategies less in homeroom due to the lack of follow up.

Non language arts teachers shared that many of them tried to support literacy development.

> The staff is very willing to support reading and writing skills. We are student focused and we know this is what they need. We had a literacy coach that worked with us on literacy strategies, but that got cut from the budget. We have talked about many of us using the literacy strategies less due to a lack of follow up.

Although the national emphasis has been on embedding literacy instruction across the curriculum or within content areas, a recent study showed data was inconclusive on whether literacy across-the-curriculum approaches impacted test scores or student achievement positively. A study sponsored by the U.S. Department of Education, executed by REL Midwest at the American Institutes for Research, studied the impact of emphasizing content-embedded literacy (reading) strategies and support on high school students' reading comprehension scores and accumulation of credits in core academic subjects. The study was conducted in 33 high schools in four Midwestern states over two school years. The study found no statistically significant impact on reading comprehension scores or the accumulation of core credits through

content-embedded, or across-the-curriculum, literacy strategies (J. Lindsay & W. Corrin, personal communication, December 19, 2012).

Theme 4: Teacher Commitment and Taking Responsibility for Student Success

Teacher commitment to students can be defined as a commitment to students as distinct, complete individuals (Louis, 1998) or as a commitment to student learning (Dannetta, 2002). Commitment to students as distinct, complete individuals is a form of commitment that may motivate teachers to interact with students in ways beyond academics, such as adolescent development issues or extracurricular activities (Louis, 1998). Commitment to student learning involves teacher dedication to helping students learn regardless of academic challenges or social background (Dannetta, 2002).

Teacher commitment can be connected to student achievement and a strong purpose to inspire others to achieve to greater levels than thought possible. A study of 17 elementary teachers in a high-poverty urban school in Texas to understand the dynamics of teacher commitment related to schools with high-poverty students found that teacher commitment was related to (a) a philosophical dedication to making a difference for students, (b) a willingness to spend personal time outside of the classroom, and (c) positive relationships with other teachers while managing the work of teaching (Mutchler, 2005).

Each participating school in this study exhibited high levels of teacher commitment to student success and refused to allow students to fail. Interview data found that all four schools had a culture among the language arts teachers that students were not allowed to opt out of work, and students were expected to complete key work assignments even if it meant requiring students to complete the work at non-traditional times.

School A took advantage of their small school size to focus staff attention on students that needed additional accountability, and utilized a homeroom time to require students to finish critical work.

> When all else fails we focus on not accepting failure or opting out of doing required work. We just refuse to let kids fail here, we are small enough that kids can't hide. They all have a homeroom study hall and if kids are not working in our class we just go into their homeroom and harass them to do the work in there, we don't allow zeros on assignments. Plus they are all afraid of our English 10 teacher and she hunts them down, she sets the tone on that.

School B also shared that they did not allow students to fail or opt out, and placed strong emphasis on follow through of high expectations. Community support was also a thread of the culture of School B.

> We don't give them a choice to fail, we just don't allow it. But we don't hand out grades they did not earn either. We make kids re-write weak essays and pull them at lunch or keep them after school to finish important work. We also talk at lunch about what might reach a kid, what their interests are, if their parents will help us, stuff like that. We find a way, we have been an A school for so long we don't want to let it slide, but really, we would be this way whether they gave us a grade or not.

Regarding addressing buy in, the language arts teachers discussed that the school did not do anything specific to address student motivation. "It is a given here, the community supports us and expects kids to do what they are asked to do. Really, we do less motivating and more expecting and following through on our expectations."

The way in which School A and School B refused to assign zeros and expected students to complete critical literacy assignments was consistent with recent research regarding effective grading practices. Assigning zeros for assignments allows students to skip critical learning activities to develop needed academic skills (Dueck, 2014). Also, assigning zeros could skew a grade record to not accurately reflect student understanding of learning goals, but simply reflects lack of compliance to complete tasks (Dueck, 2014).

Struggling learners see the greatest academic gains when their teachers adopt non-traditional grading methods (Black & Wiliam, 1998). This is evident in homework. The incomplete homework of at-risk students can be more reflective of a lack of support at home and a lack of an environment conducive to academic performance. Brain research points to a correlation between the emotional state of students' home environments and their ability to succeed academically at school (Medina, 2008).

School C created an environment in which teachers are committed to student success by working with students on the creation and tracking of their own data tied to academic progress. School C focused on promoting student ownership and providing opportunities and less on follow through of expectations.

> We had a consultant show us how to get students keeping track of their own data and setting progress goals on identified power standards. Our administration is on the intercom a lot promoting student improvement and responsibility. And we incorporate a lot of student choice in what we read. I think it is a part of why we have been successful, more students care.

School D demonstrated a stronger level of teacher commitment for student success through the many after school hours put into preparing collaborative lessons. Also, a strong

emphasis on test preparation as a way to finish Indiana graduation requirements by passing the English 10 exam was noted. Once students completed this requirement, faculty focused on motivating students by transitioning to college prep. Regarding student buy in, the administration discussed encouraging teachers to focus on the need to pass state exams, to finish high school, and to focus on college prep.

> We focus on testing prep in Grades 9 and 10 in language arts, and then in Grades 11 and 12, we focus on college prep. Our language arts teachers ask our students to knock out the state testing so we can focus on getting ready for college, some of our students respond to that thinking.

School D also implemented a Response to Intervention (RtI) initiative to help more students be successful through a variety of interventions, done in addition to regular classroom instruction, intended to help students improve their reading level to close any gaps due to reading behind grade level. The developmental reading course was an example of an RtI strategy implemented at School D. One comprehensive study on RtI models found that the model reduced the number of students evaluated for special education services and reduced a disproportionate number of ethnic minority and male students being referred to special education (VanDerHeyden, Witt, & Gilbertson, 2007).

Finally, School D demonstrated a commitment to not allow students to fall behind or fail, and implemented an RtI initiative to address the needs of struggling learners. Through this process School D exhibited a commitment to student success and refused to accept low test scores, which the school had previously been known for. The language arts teachers of School D shared during the on-site interview that four years prior the school's language arts tests scores were the lowest in their area.

> It became our mission to figure this out and help students improve. The first thing we did was set up a Response to Intervention (RtI) program. Students that failed language arts in middle school were identified and placed in a developmental reading class as step one in the RtI process. We really started taking ownership to bridge the deficiency gap.

When asked why School D had language arts test scores higher than were expected, the language arts teachers discussed sharing/discussing strategies with each, a deep commitment, and the RtI process led by the developmental reading class and an English lab.

> About the same time we went to training on strategies such as reading and thinking voice we started professional learning communities here. Every Wednesday we get a full hour to share what we are doing. We meet and discuss strategies that are working and not working and changes we want to try. When we started meeting like this it changed everything. We used to just sit around and complain about kids, now we discuss strategies. We spend a lot of time talking with each other about high interest materials and reading selections and what kids might care about and connect with, we really want to avoid student boredom. We just run Google searches if we want to find some help. We did not feel alone anymore or wondering who was not pulling their weight. Our culture really has become to keep improving. And the collaboration can be intense. We had one teacher that would not let go of traditional novels that kids did not care about anymore. The debates about boring kids versus connecting them to readings was intense for a while. One teacher would not give up Fahrenheit 451, we told her she was nuts. She ended up retiring and did not want to get on board.

Developmental reading classes and English lab for students who failed English 9 set a foundation of RTI strategies to support struggling students and help improve testing success.

> Our department co-chairs teach our English Lab to all ninth graders who fail English 9. This is in addition to the students' regular English class. They take responsibility as leaders for re-teaching key skills to students, and the success rate is there. We just take deep responsibility. It takes a village to get a student to improve reading and writing and each member of the language arts department is a part of the village.

Teacher commitment to taking personal ownership of student academic improvement was also found in the following interview data, along with evidence of refusing to allow students to skip or opt out of critical literacy activities:

> We did not expect the developmental reading class to solve it all though. We got more serious about expectations in student performance. For example, we started demanding specific writing responses to reading pieces that included supporting evidence from the readings. We just make students do the work over and over until they gave us what we wanted. We talked about it at a PLC and got together on it. We all did it the same and the students started giving us writing with more backbone to it with specific examples. Another example is once a month we require a timed writing from a prompt that is typed in a word processor, like a testing situation, in which it has to be their best work with no spell checking, it is best draft from the start. We don't fail students who struggle with it, just leave the grade blank in the grade book and make them do it again until they get it right.

Table 4 presents interview data that supported each of the identified themes in this study. Guidelines from the work of Braun and Clarke (2006) and Stake (2006) were used to prepare Table 4. Qualitative interview data provided a foundation that all four high-performing schools shared common practices for teacher collaboration, cultivating student interest through the use of

high-interest reading materials, a lack of one common instructional method approach or incorporation of literacy across the curriculum, and strong teacher commitment to student literacy improvement.

Table 4

Effective Literacy Instruction Across the Curriculum at the Secondary Level in Indiana Themes

School	Teacher Collaboration	High Interest Reading Materials	Teacher Commitment	No Across-the-Curriculum Culture
School A	Our English 10 teacher pulls articles from Phi Delta Kappan and Marzano and gets us copies and we discuss it at lunch, we all eat at the same time. She makes us read the stuff and gets on us if we don't. We discuss our teaching practices at lunch, we don't complain at lunch like most teachers, she (the English 10 teacher) won't let us.	We try to be cheerleaders and encourage, a lot of our students have plenty of negative at home. We try to bring in topics and reading we know students are thinking about, like love or current events issues.	We just refuse to let kids fail here, we are small enough that kids can't hide. They all have a homeroom study hall and if kids are not working in our class we just go into their homeroom and harass them to do the work in there, we don't allow zeros on assignments. Plus they are all afraid of our English 10 teacher and she hunts them down, she sets the tone on that.	We had a principal that tried to make us do some things a few years back, but it did not take. Our English 10 teacher gives us stuff to read and has been talking about common core, we see we could all help with literacy but most of us focus on our content.

Table 4 (continued)

School	Teacher Collaboration	High Interest Reading Materials	Teacher Commitment	No Across-the-Curriculum Culture
School B	We have a common prep period daily that we use to meet together 1 to 2 times per week, and we eat lunch together every day. We use the lunch time to plan together and help solve problems, we all have families and do not have time to meet after school. We discuss strategies and common issues we see students having.	We do make sure the students are reading things they are interested in, that is a big one. We can't get kids to focus if we read stuff they don't like.	We don't give them a choice to fail, we just don't allow it. But we don't hand out grades they did not earn either. We make kids re-write weak essays and pull them at lunch or keep them after school to finish important work. We also talk at lunch about what might reach a kid, what their interests are, if their parents will help us, stuff like that. We find a way, we have been an A school for so long we don't want to let it slide, but really, we would be this way whether they gave us a grade or not.	We see reading comprehension issues in our content areas, but we are not really thinking of it as literacy instruction. We are just trying to get kids to grasp our content. No one has really defined literacy instruction for us or told us we have to focus on it, we try to deal with our content.

Table 4 (continued)

School	Teacher Collaboration	High Interest Reading Materials	Teacher Commitment	No Across-the-Curriculum Culture
School C	We are very straightforward when we work together after school. Our expectations of each other are high. We are willing to make each other mad. If someone complains about a student, we tell them to come up with a solution or strategy. If we don't like an idea or adaptation of a strategy proposed in the group, we tell them and why. A teacher got a transfer to another school because she could not handle the level of honesty. We even confront each other about what students say- if a student complains about a teacher and we think it may have merit, we go confront the teacher.	Our administration is on the intercom a lot promoting student improvement and responsibility. And we incorporate a lot of student choice and developing student opinion based on what we read. I think it is a part of why we have been successful, more students care.	We had a consultant show us how to get students keeping track of their own data and setting progress goals on identified power standards. Our administration is on the intercom a lot promoting student improvement and responsibility.	The literacy coach would model a strategy then we would use it with students the next week, but that is not happening this year and people are starting to use the homeroom time as a regular study hall. And teachers are telling us they are using literacy strategies less in homeroom due to the lack of follow up.

Table 4 (continued)

School	Teacher Collaboration	High Interest Reading Materials	Teacher Commitment	No Across-the-Curriculum Culture
School D	About the same time we went to training on strategies such as reading and thinking voice we started Professional Learning Communities here. Every Wednesday we get a full hour to share what we are doing. We meet and discuss strategies that are working and not working and changes we want to try. When we started meeting like this it changed everything. We used to just sit around and complain about kids, now we discuss strategies. We spend a lot of time talking with each other about high interest materials and reading selections and what kids might care about and connect with,	We used to just sit around and complain about kids, now we discuss strategies. We spend a lot of time talking with each other about high interest materials and reading selections and what kids might care about and connect with, we really want to avoid student boredom. We just run Google searches if we want to find some help.	Our department co-chairs teach our English Lab to all 9th graders that fail English 9. This is in addition to the students' regular English class. They take responsibility as leaders for re-teaching key skills to students, and the success rate is there. We just take deep responsibility. It takes a village to get a student to improve reading and writing and each member of the language arts department is a part of the village.	Our language arts teachers have really done well the last few years with reading and writing. We don't want to mess it up and we have not been trained in what they are doing, it is really their deal. Really our school has done nothing to address the importance of literacy except our language arts teachers meeting weekly to address it in their classrooms, and I think they were sent to some training. Our principal tried to start vocabulary focus in all classrooms with two words a week we all would focus on, it did not last long and there was no buy in.

Table 4 (continued)

School	Teacher Collaboration	High Interest Reading Materials	Teacher Commitment	No Across-the-Curriculum Culture
	we really want to avoid student boredom. We just run Google searches if we want to find some help. We did not feel alone anymore or wondering who was not pulling their weight. Our culture really has become to keep improving.			

CHAPTER 5

CONCLUSIONS AND IMPLICATIONS

The purpose of this study was to understand and discover school- teacher- and student-level factors that describe effective literacy instruction at the secondary level of high performing schools with higher than predicted state testing scores in language arts. Professional development approaches, literacy strategies for secondary-level literacy instruction, and teacher attitudes in high-performing schools were studied to inform best practices in literacy at the secondary level. Finally, how these schools addressed student-level factors in literacy such as relevance, school climate, and student buy in were considered to inform how school systems might approach and work with students regarding literacy development. The research questions of this study were

1. What school factors and approaches are found and utilized in literacy instruction by secondary schools with higher than predicted state testing scores in language arts?

1a. What teacher practices and approaches are found and utilized in literacy instruction by secondary schools with higher than predicted state testing scores in language arts?

1b. How do secondary schools with higher than predicted state testing scores in language arts address student factors that contribute to positive student motivation and buy in for literacy instruction?

This study collected the literacy practices and approaches of four secondary schools in Indiana that were high performing on state exams in language arts through survey and interview

data. The goal of this study was to inform central office administrators and building principals in programming, logistical, and design decisions that may put secondary-level schools in the best position to incorporate meaningful literacy initiatives in their schools.

A linear regression was executed for all middle and high schools in Indiana for spring 2011, 2012, and 2013 language arts state testing results. This was used to build a predicted language arts scale score based on free and reduced lunch status for all schools. The predicted scale score was then subtracted from the actual scale score of each secondary school to determine the residual difference. Schools with the largest positive residual differences in at least two of the three years were invited to participate in the study. The study gained permission from two high-performing middle schools and two high-performing high schools to discover approaches, attitudes, and implementation practices in literacy instruction at these high performing schools.

Participants included all building administrators and teachers at the identified schools willing to volunteer to participate in this study. Identified schools that volunteered to participate were asked to complete an electronic survey, delivered via Survey Monkey, one week prior to a site visit for interviews. The surveys measured attitudes, behaviors, strategies employed, and actions in literacy in the participant's school setting. The principals, language arts teachers, and other content area teachers in the participating schools were interviewed separately. One interview protocol was created for this study but with two different sets of questions based on the Chapter 2 literature review, one for building administrators (Appendix D) and one for teachers (Appendix E). The administration interview protocol asked about professional development, student buy-in considerations, scheduling factors, and approaches to support literacy instruction

at the school level. The teacher interview protocol asked about the same areas from their perspective.

Themes and Findings

This study found four themes and commonalities in the high performing schools that participated in this study. The four themes include (a) high levels of teacher collaboration among the language arts teachers of each school to collectively work to improve student literacy in their school, (b) the incorporation of high interest reading materials while working with students on their reading comprehension skills, (c) strong levels of teacher commitment and personal responsibility among the language arts teachers of each school to see student literacy improve, (d) lack of a common instructional method to improve student literacy. This was not found in any of the four schools that participated in the study. None of the four schools in the study presented evidence of a developed across-the-curriculum culture for literacy development

Evidence of consistent teacher collaboration by language arts teachers to plan for and solve student learning in literacy development was a central finding of this study. Examples were found in each of the four school participants of strong commitment among the language arts teachers to share the challenge of improving student literacy together. Collaborative planning meetings after school, during school hours, at lunch, and on evenings and weekends were found. Language arts teachers discussed student learning obstacles, planned and strategized together, challenged each other's thinking, and shared ideas and resources found to improve student learning. Language arts teachers also worked together to attack student motivation issues.

Another finding of this study includes a commitment to address student motivation in reading comprehension by ensuring students are provided opportunities to reading materials that

were of high interest to them. Language arts teachers in all four schools worked together to identify students' interests and provide reading materials students would connect with and be motivated to read. This was done to ensure maximum student engagement when working with students to develop key reading comprehension skills.

Language arts teachers in all four participating schools, as found in interview statements, demonstrated an attitude of taking responsibility and ownership for the literacy development of all students in their schools, despite student background, obstacles, or previous failures. Three of the four schools had, as recently as three to five years prior, experienced lower language arts test scores that were in need of improvement and flagged under the Indiana school accountability law in some way. All four school participants discussed an attitude of "refusing to let students opt out." Teachers in this study would not accept student refusal to work on critical literacy tasks and assignments, and often pursued students during lunch, homeroom, and outside of class to push students to prevent opting out and to get key literacy activities completed. Examples were found of continuing to expect a student to complete key literacy assignments, refusal to assign zeroes, and the general approach and attitude that key reading and writing activities simply needed to get completed no matter what.

Finally, none of the four school participants exhibited a culture of across-the-curriculum literacy development among teachers outside of the language arts department. Other content area teachers in all four schools routinely reported, except in a few isolated exceptions, that they focused on their content areas and let the language arts department handle literacy development. Three of the four participating schools had one prior attempt to get across-the-curriculum literacy initiatives implemented that were unsuccessful. Two of those attempts did not get going in any concrete way, and one school incorporated literacy development into a stand-alone homeroom

time, not embedded in content areas. Further, a common approach or instructional method among the language arts teachers to literacy development in reading and writing was not found in any of the four schools. Each school emphasized a different best practice approach or approaches to specifically help students improve their writing and reading skills based on the needs of their particular students.

Implications and Conclusions of the Study

Research previously cited indicated only a third of students enter the secondary level reading at a proficient level (NCES, 2013). The economy of the 21st century requires students to have ever-increasing levels of literacy skills to work effectively (Bottoms, 2008). A recent reaction to these developments has been an emphasis on literacy development in all content areas of a school, not just in the language arts department. The Common Core State Standards' emphasis on literacy skills embedded in science, social studies, and technical subjects is an example (Common Core State Standards, 2012). As a result, school administrators must be prepared to develop and cultivate comprehensive approaches to developing the best literacy initiatives possible in their schools. This study informs this reality in multiple ways.

First, educators are reminded by the four school participants in this study that the language arts teachers provide the foundation of student literacy development for a school. All four school participants had high-quality language arts departments that worked together to improve student literacy. The implication of this part of the study is that school leaders need to first and foremost focus on making sure the right teachers are working in language arts in their schools to ensure the proper functioning, cohesiveness, and commitment of their language arts department for a foundation of student literacy development.

Next, a critical implication of this study is that matters of the professional culture within a language arts department and school may be more critical than matters of what particular instructional methods or approaches are being implemented for student literacy development. This study sought to identify common approaches related to instructional methods, approaches, and practices to improve student literacy, with approaches as a secondary question. Instead, this study found that in all four high-performing schools, matters of positive professional culture were the driving force, not a particular approach to teaching reading or writing. Professional culture issues of meaningful teacher collaboration to share the responsibility of student literacy development, personal responsibility among teachers with a high commitment level to push students to succeed, and flexible thinking to find ways to motivate students were central findings of this study.

An implication of this finding for school leadership is that school leaders, when focusing on the approach to literacy development at their school or district, may be wiser first to focus on cultivating matters of teaching culture such as encouraging teacher collaboration, building time for teachers to work collaboratively, investing in training to help teachers best work together efficiently, and hiring teachers with an interest and track record for working collaboratively instead of in isolation. Another facet of this is looking for teachers with a track record of putting in extra hours, demonstrating personal commitment to finding ways to be successful even through great challenges, and teachers that will not settle for allowing students to opt out of critical learning activities to practice literacy development.

Great emphasis has been placed on approaches to literacy development in recent years. Schools have asked science, math, social studies, and elective teachers to help improve student literacy skills in a variety of ways. Although it should be acknowledged this study looked at

only four high-performing schools, implications of a lack of an across-the-curriculum culture in these four schools were found.

First, school leadership should first not only focus on the professional culture among their language arts teachers, but also the implementation of best practice teaching approaches for literacy among the language arts teachers that meet the unique needs of their students. School leaders may make a critical mistake if they do not start here first. Any attempt to develop an across-the-curriculum literacy approach may be counter-productive, and may be a waste of time, if the language arts department is not working collaboratively, and using best practices, to provide the best approach to student literacy first.

Next, the four over-performing schools in this study did not have any history of content-embedded across-the-curriculum literacy approaches, yet consistently outperformed similar schools in Indiana over a three-year period on the language arts portion of state exams. An implication of this study has to be to ask the question, "Is an across-the-curriculum, or content-embedded approach to literacy development necessary?" At the minimum, an implication of this study is that school leaders should not begin their focus on literacy development within their school with all teachers, but first with the language arts department. It appears inconclusive at this time that content-embedded, across-the-curriculum literacy approaches will improve student literacy as measured on state assessments. This study found four schools in Indiana that had been successful without it. The study by Lindsay and Corrin (2012) previously cited in this study, was a much larger study including 33 schools over a two-year period (J. Lindsay & W. Corrin, personal communication, December 19, 2012). That study also found inconclusive results that were not statistically significant that content-embedded literacy development would lead to literacy improvement as measured in reading comprehension assessments. It is also

possible that literacy proficient levels among secondary students can be attained through high quality work of language arts teachers, and getting more secondary level students to advanced levels of literacy attainment will require high quality, collaborative content embedded literacy work of not only the language arts teachers, but also all other content area teachers of the school.

The implication for school leadership includes proceeding with caution when thinking of instituting across-the-curriculum literacy approaches. Given a traditional lack of buy in by non-language arts teachers regarding literacy focus outside of language arts gives further cause to proceed with caution. If school leadership elects to encourage and implement content-embedded literacy development across the curriculum, it should only be after it is clear the language arts department is functioning effectively for literacy development, and buy in exists among non-language arts teachers. Since it is unclear and inconclusive at this time regarding content-embedded literacy impact on test results in reading and writing, school leaders may want to evaluate if other more important factors such as culture and best practices among language arts teachers should be invested in first.

Another implication of this study for school leadership is the need to invest in and encourage high-interest reading materials for students to engage in literacy development with. All four schools in this study were able to bridge a motivation gap with students through engaging reading materials that were carefully planned with student engagement in mind. Student interests should be surveyed and considered before selecting reading materials with secondary students. Textbook adoption funds, one-to-one technology digital curriculum funding, and teacher funded materials should all be carefully weighed with students' choices and interests before making an investment in reading materials to engage students in literacy development.

An additional implication of this study is that a variety of best practice approaches exist to engage students in reading and writing development. The four schools in this study employed best practice approaches that met the needs of their students, with each school focusing on different methods. School leadership needs to ensure teachers are aware of an array of best practice approaches and work to identify what is best approach for their students in their context.

It is recommended that school leaders seek two resources to inform action steps to assess where their schools are at regarding key findings of this study such as strong levels of teacher collaboration. First, *Getting Started: Reculturing Schools to Become Professional Learning Communities* (Eaker et al., 2002) contains surveys to assess present levels of professional collaboration in a school, with recommendations for action steps based on survey results. Second, Marzano (2013) included a framework for school leaders to guide their efforts to lead schools that have high levels of reliability in areas of school safety, curriculum, assessment, and student learning. Each high reliability factor is informed by "leading and lagging" (Marzano, 2013, pp. 11-12) indicators. Leading indicators include "indicators that not only reflect key investments, but also incorporate measures of important conditions that are known to be associated with improvement" (Marzano, 2013, p. 11). Lagging indicators "are the evidence for high reliability status" (Marzano, 2013, p. 12). Leading indicators inform critical places to start when implementing concepts of high reliability schools or assessing where a school stands, while lagging indicators provide a framework for evidence that high reliability status has been attained. Marzano's framework provides guidance for school leaders trying to assess current standing of their school regarding school reform and where to focus time and resources to improve.

A final implication of this study involves the non-traditional grading practices for key literacy assignments used by Schools A and B. Students that did not complete key literacy

assignments were told they simply had no choice but to do the work. Each school refused to assign a zero for the missing work and just move on, as they recognized this practice allowed the students to opt out of critical literacy development. A philosophy was implemented in which the student simply would not pass the course until the assignment was done to the satisfaction of the instructor. This practice is consistent with the research of Myron Dueck regarding assessment practices that motivate students. *Grading Smarter Not Harder: Assessment Strategies That Motivate Kids and Help Them Learn* (Dueck, 2014) is a resource administrators can utilize to engage teachers in meaningful conversations and evaluation regarding the current literacy grading practices and philosophies of their school.

Recommendations for Further Study

The possible statistical significance of content-embedded literacy development, or literacy across the curriculum should be studied further. Is it possible that content-embedded literacy development throughout our schools, and nation, could be a key factor in raising low secondary level reading proficiency and advanced levels posted by our nation's students? The Lindsay and Corrin (2012) study found results that were not statistically significant between content-embedded literacy and reading comprehension improvement (J. Lindsay & W. Corrin, personal communication, December 19, 2012). However, the study notes that there were some implementation concerns and inconsistencies in using the literacy strategies for reading comprehension with fidelity in the 33 schools that participated in the study that may have negatively impacted the study results. This study recommends further studies in which the implementation can be more controlled and consistent.

A delimitation of this study was that it included only four secondary-level schools in Indiana. One recommendation for further study would be to use the same mixed-methods

approach used in this study, but expand the number of school participants to collect qualitative data related to literacy practices from a larger sample of high-performing schools. Another recommendation for further study would be to include more secondary-level schools in a study that looks at a possible correlation between content-embedded literacy focus and language arts test score improvement, trying to control for content literacy implementation. An additional recommendation would be to conduct a study with schools that implement content-embedded literacy and schools that do not to compare their testing results related to literacy skills.

Addressing student buy in is an area this study looked at that is recommended for further study. One recommendation includes conducting a study with students to ask them what approaches and methods add to their engagement level when asked to participate in literacy skill development. Students should also be asked about their views and buy in related to embedding content literacy in other subjects besides language arts. Do students find this approach to be of value and relevant to their development as students, or just a superficial attempt to do what their language arts teachers are doing with them?

Another possibility would be to develop a survey built around the four themes of this study, to be completed by over-performing schools through a region or country. Survey results from a study of this scale could seek to quantify if the themes of this study are found in a wide range of over-performing schools to inform best practices in school wide literacy development.

A final recommendation for further study would include studying the impact and possible correlation between a school district employing a literacy coach and improved language arts test scores. School C in this study had employed a literacy coach that was lost one year prior to participating in this study due to budget cuts. Language arts test scores improved while the literacy coach was employed at the school. Further study could include continuing to study

School C and their students' language arts performance on state testing without the services of the literacy coach, to see if their testing data decreases? Schools that do and do not employ a literacy coach could be studied and their language arts testing results compared, though controlling other factors that may impact student performance may be a challenge.

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APPENDIX A: CONSENT TO PARTICIPATE

CONSENT TO PARTICIPATE IN RESEARCH

Effective Literacy Instruction at Secondary Level in Indiana Study

You are invited to participate in a research study conducted by Paul White, who is a doctoral student from the Educational Leadership Department at Indiana State University. Mr. White is conducting this study for his doctoral dissertation. Dr. Terry McDaniel is the faculty sponsor for this project. Your participation in this study is entirely voluntary. You should read the information below and ask questions about anything you do not understand before deciding whether or not to participate. You are being asked to participate in this study because you work in a secondary school in Indiana with higher than predicted standardized test scores in language arts.

- Purpose of the Study

The purpose of this study is to understand and discover school, teacher, and student level factors that describe effective literacy instruction at the secondary level of high performing schools with higher than predicted state testing scores in language arts. The identification of these factors can inform central office administrators and building principals in programming, logistical, and design decisions that may put secondary-level schools in the best position to incorporate meaningful literacy initiatives in their schools.

- Procedures

If you volunteer to participate in this study, we will ask you to do the following:

1. Participate in a brief survey electronically via Survey Monkey.
2. Participate in an interview of approximately 30 minute in length
2. Possible additional tasks include (1) answering questions about what you know regarding literacy instruction, your attitudes about literacy instruction, and your behavior related to literacy instruction in your school; (2) share work products related to literacy instruction in your school
3. The researcher may observe you while you take part in literacy activities at the school.
4. The interview will be audio taped. The recorder will be placed in the corner of the conference room table and will be operated by the researcher.

- Potential Risks and Discomforts

Participants will not be at risk or experience discomfort as a result of this study. Participation in this study is voluntary and will not be connected to a participant's performance evaluation in any way. Information shared or gathered in this study will be confidential. If a participant experiences discomfort in this study, they may choose to withdraw participation at any time.

- Potential Benefits to Subjects and / or Society

Participants will not benefit directly from participation in this study. Participants will be contributing to the body of research that exists regarding effective literacy instruction and advancing our understanding of this topic at the secondary level. As a teacher or administrator in a secondary school that is high performing in language arts standardized tests, participants will help to identify common practices, approaches, and attitudes for literacy instruction in high performing secondary schools.

- Confidentiality

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of a coding procedure in which all participating schools will be given a code letter (School A, School B) and all participants will be given a number as the only identification (School A, Participant #1). Data collected will be stored on the researcher's personal computer, will be password protected, and only the researcher will have access to it.

Information that can identify you individually will not be released to anyone outside the study. Mr. White will, however, use the information collected in his dissertation and other publications. We also may use any information that we get from this study in any way we think is best for publication or education. Any information we use for publication will not identify you individually.

Interviews will be audio recorded and only the researcher will have access to these recordings. The recordings will only be used for the purposes of this study and will be destroyed at the conclusion of the study.

- Participation and Withdrawal

You can choose whether or not to be in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind or loss of benefits to which you are otherwise entitled. You may also refuse to answer any questions you do not want to answer. There is no penalty if you withdraw from the study and you will not lose any benefits to which you are otherwise entitled.

- Identification of Investigators

If you have any questions or concerns about the research, please feel free to contact

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- Right of Research Subjects

If you have any questions about your rights as a research subject, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-8217, or e-mail the IRB at irb@indstate.edu. You will be given the opportunity to discuss any questions about your rights as a research subject with a member of the IRB. The IRB is an independent committee composed of members of the University community, as well as lay members of the community not connected with ISU. The IRB has reviewed and approved this study.

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

_____
Printed Name of Subject

_____ _____
Signature of Subject Date

Indiana State University
Institutional Review Board
_____

IRB Number:_____

Approval:_____

Expiration Date: _____

APPENDIX B: LITERACY SURVEY – PRINCIPALS

Literacy Survey of Effectiveness Factors: Building Administration

*Respond to each factor by selecting from a 1 through 4 rating system;
1 = Not at all; 2 = Occasionally; 3 = Often or To an Extent; 4 = All the time or To a Great Extent

1. Literacy instruction has been clearly defined at our school for language arts teachers. 1 2 3 4
2. Literacy instruction has been clearly defined at our school for all teachers. 1 2 3 4
3. All teachers have "bought-in" that they can impact the literacy development of their students through their content area. 1 2 3 4
4. Professional development is provided for all teachers to increase the integration of best practice literacy strategies within their content area for student vocabulary. 1 2 3 4
5. Professional development is provided for all teachers to increase the integration of best practice literacy strategies within their content area for student writing. 1 2 3 4
6. Professional development is provided for all teachers to increase the integration of best practice literacy strategies within their content area for student reading comprehension. 1 2 3 4
7. A certain number of student literacy work products or time for literacy instruction per week has been communicated to all teachers as an expectation. 1 2 3 4
8. Someone checks to ensure that teachers are integrating literacy strategies in their content area. 1 2 3 4
9. The present reading levels of all students are measured, and the data is accessible to teachers. 1 2 3 4
10. Teachers plan reading selections in their content with present student reading levels in mind. 1 2 3 4
11. Students reading below grade level in your school participate in intensive reading intervention separate from language arts classes. 1 2 3 4

12. I spend time on a weekly basis planning, supporting, and developing our literacy initiative.	1	2	3	4
13. Students are encouraged to read on their own time for pleasure and are given time during the school day for this endeavor.	1	2	3	4
14. Literacy goals for our school have been communicated to students, and we attempt to address student "buy-in" for literacy development.	1	2	3	4
15. Teachers in our school know the Marzano six steps for effective vocabulary instruction and utilize the process for student vocabulary growth.	1	2	3	4
16. Teachers in our school are familiar with key components of effective writing and provide feedback to students about their writing development on content related writing assignments.	1	2	3	4
17. Teachers in our school are familiar with many reading comprehension strategies and model the strategies for students to use during content readings.	1	2	3	4
18. We have identified essential vocabulary terms in all content areas and students receive instruction that promotes increased background knowledge and long term retention.	1	2	3	4

APPENDIX C: LITERACY SURVEY – TEACHERS

Literacy Survey of Effectiveness Factors: Building Administration

*Respond to each factor by selecting from a 1 through 4 rating system;
1= Not at all; 2 = Occasionally; 3 = Often or To an Extent; 4 = All the time or To a Great Extent

1. Literacy instruction has been clearly defined at our school for language arts teachers. 1 2 3 4
2. Literacy instruction has been clearly defined at our school for all teachers. 1 2 3 4
3. I have "bought-in" that they can impact the literacy development of their students through their content area. 1 2 3 4
4. All teachers have "bought-in" that they can impact the literacy development of their students through their content area. 1 2 3 4
5. Professional development is provided for all teachers to increase the integration of best practice literacy strategies within their content area for student vocabulary. 1 2 3 4
6. Professional development is provided for all teachers to increase the integration of best practice literacy strategies within their content area for student writing. 1 2 3 4
7. Professional development is provided for all teachers to increase the integration of best practice literacy strategies within their content area for student reading comprehension. 1 2 3 4
8. A certain number of student literacy work products or time for literacy instruction per week has been communicated to all teachers as an expectation. 1 2 3 4
9. I have conversations about literacy instruction with my colleagues and discuss successes. 1 2 3 4
10. Our school addresses student "buy-in" regarding the need for literacy development. 1 2 3 4

11. I address student motivation for literacy development in my content by establishing purpose, incorporating student topics of interest, and/or cultivating informed student opinion. 1 2 3 4

Writing – To what extent do you work with students in your content area on . . .

12. Feedback on not only their summary of content but also writing process improvement (paragraph development, supporting the paragraph thesis statement with details)? 1 2 3 4

13. Require all students to cite text examples from reading selections in their writing? 1 2 3 4

14. Different types of writing (persuasive, narrative, informational)? 1 2 3 4

15. Conventions (punctuation, grammar, spelling, verb tense)? 1 2 3 4

Vocabulary – To what extent do you work with students in your content area on . . .

16. Essential vocabulary term lists that are to be mastered long term? 1 2 3 4

17. Marzano six steps of effective vocabulary instruction, including students stating term in their own words, drawing picture representations, discussing terms with peers, and game formats? 1 2 3 4

18. Students identifying similarities and differences with the vocabulary term? 1 2 3 4

Reading Comprehension-To what extent do you work with students in your content area on . . .

19. Content specific reading selections that are based on present student reading levels? 1 2 3 4

20. Increasing background knowledge of the context or theme of the reading selection before students read the text? 1 2 3 4

21. Modeling strategies such as chunking the text into smaller parts, note taking techniques, coding or annotations systems to organize content or student thoughts about the reading? 1 2 3 4

22. Weekly homework involving practicing reading content for comprehension of key content themes? 1 2 3 4

23. More difficult texts with higher levels of vocabulary and themes (text complexity)? 1 2 3 4

24. Ensuring that teachers are integrating literacy strategies in their content area?	1	2	3	4
25. Administration seeking teacher input regarding how and why to focus on literacy instruction in all content areas?	1	2	3	4

APPENDIX D: PRINCIPAL INTERVIEW PROTOCOL

1. How has literacy instruction been defined for your faculty at your school, and how have you defined it? Who was involved in developing your definition of literacy instruction?

2. Why are your school's language arts scores higher than a typical school with your free/reduced lunch status?

3. How is professional development addressed to support literacy instruction in your school, and why is this your chosen plan of action?

4. How do you build collaboration and collegiality among all teachers to support literacy instruction?

5. How do language arts teachers approach developing student literacy skills?

6. How do non-language arts teachers approach developing student literacy skills within their content areas?

7. How have you addressed teacher buy in for literacy instruction? What is your perception of the attitudes and buy-in of the non-language arts teachers in your school regarding developing student literacy skills? Why is the school culture for literacy where it is today?

8. How do you ensure teachers are integrating literacy instruction in their content areas? Are there a certain number of work products or literacy development goals to be met? If yes, what follow up mechanisms are in place to ensure these expectations are being implemented?

9. Why do you to address student "buy-in" for literacy and how do you approach this?

10. How is follow up and accountability for your literacy goals and activities addressed?

11. How do you attempt to involve parents in the literacy development process? What approaches have been used to try influence literacy development in the home?

12. How do you measure present student reading levels, and how is this data incorporated into the school's literacy plan?

13. How have you addressed Common Core literacy goals such as text complexity, or student interaction with difficult reading selections?