2013

Deconstructing Differences In Effectiveness Of Reading Teachers Of Ninth Grade Non-proficient Readers In One Florida School District

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DECONSTRUCTING DIFFERENCES IN EFFECTIVENESS OF READING TEACHERS OF NINTH GRADE NON-PROFICIENT READERS IN ONE FLORIDA SCHOOL DISTRICT

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the School of Teaching, Learning, and Leadership
in the College of Education
at the University of Central Florida
Orlando, Florida

Summer Term
2013

Major Professor: Rosemarye Taylor

ABSTRACT

This study was undertaken to identify specific instructional and professional differences between the most effective and least effective teachers of ninth grade students enrolled in intensive reading courses in one Florida school district. Teachers from eleven schools were invited to complete a survey that included categorical, Likert, and open-ended response items. Principals and assistant principals at these schools were also invited to complete a similar survey. Teacher respondents were then divided into three effectiveness groups based on the percentage of their students who met 2011-2012 FCAT performance targets established by Florida's value-added learning growth model.

Inferential statistics were used to identify specific attributes that differed among the most and least effective teachers. These attributes included years of classroom teaching experience, status of Florida Reading Endorsement, belief in collaboration with others as a source of effectiveness, valuation of classroom strategies including teaching students to self-monitor their progress and cooperative learning activities, and frequency of use of reading strategies including sustained silent reading and paired/partner student readings. School administrators and the most effective classroom teachers reported similar beliefs about valuation and frequency of use of the four aforementioned classroom strategies. Analysis of responses to open-ended response items resulted in the identification of three instructional themes—importance of building positive relationships with students, student practice, and student self-reflection—and three resource needs—increased access to technology, print resources, and professional learning.

This dissertation is dedicated to my son, Benjamin.

Your first year of life has been the most important year of my life. I am excited that completion of this research and degree will give me much more time to spend with you!

ACKNOWLEDGMENTS

This dissertation and completion of the doctorate degree represents the end to my journey through formal postsecondary education that has spanned four degrees at two universities over nearly two decades. Many people have profoundly influenced both my studies and my career, either through quality teaching or unwavering support, or both. I would like to take this opportunity to thank those who have contributed to this milestone in my life.

Although these individuals probably do not remember me, I owe much to four professors at the University of Florida: Rebecca Karl, Barbara Wingo, Charles Montgomery, and Elizabeth Washington. Drs. Karl, Wingo, and Montgomery challenged me to write more deliberately and research more carefully. Dr. Washington's emphasis on using primary sources and historical empathy to teach history to adolescents was largely responsible for getting my teaching career off to a great start.

At the University of Central Florida, I am grateful for the support of my doctoral committee: Dr. Rosemarye Taylor (chair), Dr. Gordon Baldwin, Dr. Walter Doherty, Dr. Barbara Murray, and Dr. Bryan Zugelder. Dr. Taylor provided quick feedback and established firm deadlines that ensured on-time completion of this study with a (hopefully) high-quality product. Dr. Baldwin was also most generous with his time on the study's methodology. I would also like to thank Dr. Kenneth Murray and Dr. Michael Grego for teaching courses in the doctoral program that were both intellectually enjoyable and job embedded.

Walt Griffin, Mary Williams, Tim Harper, Jordan Rodriguez, and Jose Sanchez are classmates and colleagues who provided support and levity as I grinded through this research. They also made Monday and Thursday evening classes at the University of Central Florida much more enjoyable. Our trip to visit schools in Toronto, Canada produced some of my favorite memories of the doctoral program.

I am fortunate to work in a school district whose leaders believe that all students deserve a world-class education. My current supervisor, Dr. Anna-Marie Cote, has provided me with many opportunities over the past two years while also understanding and accommodating the demands of doctoral study. Dr. Brandon McKelvey, a colleague and friend, offered both encouragement and statistical advice throughout the study.

My family has been supportive of, and patient with, my educational and professional choices. My parents, Carl and Terry Wysong, and my siblings, Amanda and Justin, have endured countless interrupted phone calls and abbreviated weekend visits so that I could get back to work. I have missed far too many birthdays and family celebrations recently, but I am looking forward to spending more time with them now that this project is done! My grandparents, Ronald and Billie Dennis and Reed and Andrea Wysong, always took an interest in my studies and provided critical financial support toward debt-free completion of my first two degrees. I credit my great-grandmother, Pauline Shanks, with cultivating my love of the study of history through her personal narratives of her experiences during the Great Depression.

My wife, Nicole, has been my greatest supporter and, therefore, also the person who has suffered the most from my marathon days at work and school. A two-educator

marriage has inevitably led to (probably too many) dinner conversations about schools, children, and learning, and this dialogue has led me to realize that she is definitely my better half in teaching and leadership, not just life. Her insights as a former reading teacher and current high school administrator have complemented and informed much of my research. Among her many supporting roles in my life and career, she has served as chief editor and primary proofreader of every major paper I have produced through all four degrees. Our running joke—a $10 bill for every error she finds—means that I now owe her at least a summer in Italy, a journey to see the Great Pyramids, a safari in Africa and another in Asia, and a vacation home in Savannah. May we live enough years to do all of these trips together! Our latest "adventure," raising Benjamin, will certainly be the longest and most important of our lives. As we approach ten years of marriage and eighteen years of love, I am truly fortunate.

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CHAPTER ONE: INTRODUCTION

Since passage of No Child Left Behind in 2001, high-stakes testing has placed a spotlight on the quandary of how to support struggling adolescent readers. Despite hopes that school-level accountability for student learning would be the panacea for poor reading performance, test scores in both the United States and Florida have revealed only minimal movement toward the goal of universal reading proficiency. The most recent results from the National Assessment of Educational Progress showed a paltry 1% increase in eighth grade students scoring at or above Basic on the Reading test between 1992 and 2011 (U.S. Department of Education, 2012). Results in Florida mirrored the national trend of a 1% increase in eighth grade students scoring at or above the Basic level over the last decade, except that Florida made great progress between 2007 and 2009 only to regress three percentages points between the 2009 and 2011 administrations (U.S. Department of Education, 2012).

Schools in Florida have been branded as successes or failures largely based on the outcome of the Florida Comprehensive Assessment Test (FCAT), an annual high-stakes test given in all public schools in the state. Results from the FCAT have been the primary determinant of each school's letter grade (A, B, C, D, or F) as assigned and published by the Florida Department of Education along with the school's federal Adequate Yearly Progress status (Florida Department of Education, 2012a). Beginning with the 2011-2012 school year, FCAT results were also used to measure the amount of student learning growth created by each reading and mathematics teacher in

Grades 4 through 10. This metric also comprised 50% of each applicable teacher's performance evaluation beginning in 2011-2012 (Student Success Act, 2011). The 63,000 student suburban Florida school district examined in this study has been recognized for its schools' excellent performance on FCAT, as confirmed with the receipt of a coveted Academically Highly Performing rating from the Florida Department of Education (Florida State Board of Education, 2011). This designation, a symbol of excellence, provides flexibility to deviate from some state laws and regulations (Florida House of Representatives, 2011).

Despite these successes, the target school district has struggled to consistently improve the proficiency levels of the lowest 25% of its students in ninth and tenth grade reading. In Florida, proficiency is defined as scoring at Level 3 or above on the reading FCAT. For the 2010-2011 school year, all of the school district's nine high schools earned enough points on the school grading formula to earn a grade of A (Florida Department of Education, 2011b), but five of the schools were penalized one letter grade for failing to show growth in the lowest quartile (Florida Department of Education, 2011a). Florida's lowest quartile penalty was designed to encourage schools to focus on improving the performance of the 25% of students with the lowest FCAT scores; at most schools, the entire lowest quartile is comprised of non-proficient readers (scores in Level 1 and Level 2). An analysis of school grades in the targeted school district during the years 2007-2011 showed significant fluctuation from year to year in lowest quartile data, generally following a trend of high scores in an annual FCAT administration followed by regression one year later (Florida Department of Education, 2011a).

The challenge faced by the target school district for this study, and by thousands of others throughout the United States, is how to improve—and then sustain—learning growth in reading courses. In the years since the National Reading Panel (U.S. Department of Health & Human Services, 2000) established the five priority skills of phonemic awareness, phonics, fluency, vocabulary, and comprehension, many new curriculum programs have been developed by researchers, foundations, and for-profit corporations. Much scholarly effort has been recently expended to study and evaluate these programs (Slavin, Cheung, Groff, & Lake, 2008). Recent attention has also been given to the essential characteristics of school literacy programs for adolescent readers (Biancarosa & Snow, 2006).

Much less consideration has been cast upon the quality of the classroom teachers who are tasked with the noble challenge of remediating deficiencies in reading skills (Harmon, Hedrick, Wood, & Vintinner, 2011). Teachers of high school reading classes function as interventionists; their instructional skills, beliefs about student achievement, and willingness to implement curriculum programs with fidelity make them the most critical variable in the student achievement equation (Protheroe, 2008; Wallace, Blase, Fixsen, & Naoom, 2008). Researchers have begun to carefully study the practices of reading teachers who have been labeled as effective (Poplin et al., 2011; Popp, Grant, & Stronge, 2011). Equal attention has been devoted to classroom instructional strategies that do not benefit non-proficient readers (Fair & Combs, 2011; Ivey & Fisher, 2005; Schmoker, 2011). The effort to evaluate strategy effectiveness in reading classrooms has complemented the work of Danielson (2007) and Marzano (2007), who have each created

comprehensive models of effective classroom instruction through synthesis of past research.

The need to identify practices of effective high school reading intervention teachers is the basis for this study. Supplementing models of general effective teaching, such as those designed by Marzano (2007) and Danielson (2007), with clear evidence of practices used by effective teachers in high school reading classrooms can inform a variety of instruction and curriculum decisions at the classroom, school, and school district levels to improve reading proficiency in the lowest 25% of high school readers.

Conceptual Framework

The latest permutation of the accountability movement in public education is improvement of teacher quality by distinguishing between effective and ineffective educators. A standard-bearer of this movement noted that "one explanation for past failure is simply that we have not directed sufficient attention to teacher quality and teacher effectiveness. By many accounts, the quality of teachers is the key element to improving student performance" (Hanushek, 2008, p. 170). Labeling teachers is one task, but finding a way to transform instruction is a much more challenging quest. Researchers and school administrators must endeavor to identify and understand the underlying differences between teachers who are deemed to be effective and those who are labeled ineffective. Building on previous theories and research efforts from an array of educational perspectives, this study sought to identify specific characteristics, beliefs, professional practices, and instructional strategies that separate effective from ineffective

teachers in improving adolescent literacy as measured by FCAT reading results in the target school district.

One important consideration is teachers' preparation to work with non-proficient readers. Research has already demonstrated that participation in a high-quality teacher preparation program emphasizing reading instruction is associated with both effective teaching and job satisfaction in the first years of an elementary school teaching career (Hoffman et al., 2005). Much less is known about the link between teacher preparation, professional learning, and classroom effectiveness in high school reading intervention. Because teacher preparation may be an important variable in the search to understand the differences between the most effective and least effective high school intensive reading teachers, it was explicitly included in the instrumentation for this study.

A second consideration in the theoretical foundations for this study is the impact of teachers' core beliefs on their performance in the classroom. Bandura (1997) proposed a link between motivation and the concept of expectancy: that a person's thoughts about the expected outcome of an event and self-perception of his or her ability to change that event are the determinants of the individual's motivation. He has argued that "people's level of motivation, affective states, and actions are based more on what they believe than on what is objectively the case. Hence, it is people's beliefs in their causative capabilities that is the focus of inquiry" (Bandura, 1995, p. 2). This theory of self-efficacy has been applied to classroom teachers. For example, extended professional learning opportunities in content-area reading were found to improve teacher beliefs that external hurdles to student learning can be overcome (Cantrell & Hughes, 2008). For purposes of this study,

teacher self-efficacy was an important factor to examine because it may be a determinant of student outcomes and, therefore, an underlying source of difference between effective and ineffective teachers.

A final consideration in this study was the importance of effective implementation of research-based instructional strategies. Although not grounded in any one theory of learning, there has been a growing body of research focused on the isolation of specific instructional strategies and the measurement of the impact of those strategies on student achievement (Danielson, 2007; Marzano, 2007). The strategies movement supports the notion that the classroom teacher's impact on learning is greater than all other variables, as it is ultimately the teacher's responsibility to select which instructional and reading strategies to use with each student.

The emphasis on teaching and learning strategies is simultaneously a call to focus on improving teacher quality. Joseph and Schisler (2006) asserted:

> School administrators should be careful not to adopt the latest fad in reading instruction just because it comes attractively packaged with promised results. Instead, administrators need to ensure that programs, techniques, and lessons meet student needs and include the explicit teaching of critical component literacy skills along with effective teaching principles. (pp. 13-14)

If teacher quality is to be the long-term focus of the accountability movement, then it is vital to understand which instructional and reading strategies are valued and used by both the most effective and least effective teachers.

Statement of the Problem

Despite an intense focus and significant financial commitment to remediate non-proficient readers in high school, the large suburban school district that was the target of this study has been unable to consistently improve student achievement in the lowest 25% of students as measured by outcomes on the FCAT Reading. Scholarly literature on high school reading has focused mostly on evaluation of curriculum rather than on teachers' preparation, beliefs, practices, and instructional strategies. The problem studied was identification of the fundamental differences between the most effective and least effective ninth grade reading teachers. A clear understanding of the differences identified by this research will potentially inform future staffing, scheduling, and professional learning decisions in the target school district.

Purpose of the Study

The purpose of this study was to identify the underlying professional and instructional differences between the most effective and least effective teachers of ninth grade intensive reading courses in one Florida school district through analysis of data from teacher and principal/assistant principal surveys along with teacher effectiveness data derived from student standardized test scores.

Research Questions

This study answered the following questions regarding reading teachers employed in the target school district during the 2011-2012 school year:

1) To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their professional preparation to teach literacy?
2) To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their beliefs about student achievement?
3) To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their professional practices such as planning, reflection, and collaboration with colleagues?
4) To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their valuation and use of specific instructional strategies?
5) To what extent did principals and assistant principals identify the instructional strategies that distinguish the most effective ninth grade intensive reading teachers from the least effective?

Table 1 includes the variables and data sources used to answer each research question.

Table 1

Data Sources for Teachers & School Administrators by Research Question

Research Question Construct	Label #	Data Sources	Independent (I) & Dependent (D) Variables
Professional preparation	1	Teacher survey, Section 1 Items 3 – 9	I: Level of preparation D: Effectiveness
Beliefs about student achievement	2	Teacher survey, Section 2 Items 10 – 14	I: Beliefs about student achievement D: Effectiveness
Professional practices	3	Teacher survey, Section 2 Items 15 – 18	I: Professional practices to support instruction D: Effectiveness
Valuation & use of instructional strategies	4	Teacher survey, Section 3 Items 20 – 63	I: Instructional strategies D: Effectiveness
Administrator perspective	5	Teacher survey, Section 3 Items 20 – 63 Administrator survey, Section 3, Items 17 – 61	I: Status as teacher or administrator D: Characteristics of the most effective teachers

Definition of Terms

The following terms are defined to establish the context of the study and provide clarity regarding the scope of the research:

Beliefs: A teacher's convictions about the nature of teaching, learning, and student achievement. These convictions can positively or adversely impact the teacher's ability to build meaningful relationships with students (Hattie, 2009).

Effectiveness: A quantitative metric that measures a teacher's performance based on the percentage of the teacher's students who meet an individualized learning growth

standard using Florida's value-added model for FCAT Reading (American Institutes for Research, 2011).

Instructional strategy: Teacher-selected methods that have a high probability of improving student achievement (Marzano, 2007).

Non-proficient student: A ninth grade pupil whose most recent Florida Comprehensive Assessment Test (FCAT) reading score was classified at Level 1 or Level 2, which is considered to be less than satisfactory performance (Florida Department of Education, 2012c).

Professional Practices: Teacher responsibilities that are external to classroom instruction, including planning, reflection, and collegiality (Marzano, Frontier, & Livingston, 2011).

Methodology

Research Design

This study incorporated a mixed methods approach to answer the research questions. Quantitative data were collected using the Dimensions of Effective High School Reading Teachers survey (Appendix A) given to intensive reading teachers of ninth grade students and the Dimensions of Effective High School Reading Teachers — Administrator Perspective survey (Appendix B) given to high school principals and assistant principals. The survey consisted of primarily Likert items from which descriptive and inferential statistics were calculated and analyzed. Qualitative data were gathered from open-ended questions posed to both teachers and administrators at the end

of both surveys. Teacher effectiveness data were supplied by a staff member from the target school district's Assessment and Accountability department.

This study was conducted simultaneously with another independent study by Researcher B, who used the same surveys to examine the teaching practices of 10th-grade reading teachers in the same target school district. Although the studies were conducted independently, interactions are noted when applicable.

Population

The target school district for this study was a large suburban school district with a total student enrollment of approximately 63,000 students in grades kindergarten through 12. Nine traditional high schools and two centers contributed to a total high school enrollment of approximately 20,000 students. The population for this study was all 2011-2012 teachers of intensive reading classes with ninth grade students. Students were placed in these courses based on a non-proficient (Level 1 or Level 2) FCAT Reading score in 2011. The size of the teacher population for the 2011-2012 school year was 69. The survey was given to consenting teachers during the first semester of the 2012-2013 school year. Participation was restricted to teachers who were employed in the target school district in 2011-2012 due to the need for prior year effectiveness data. All teachers in the population were included in the sample, and all teachers in the sample were invited to complete the survey.

Additionally, research question five required administration of the Dimensions of Effective High School Reading Teachers—Administrator Perspective survey (Appendix B) to all 2011-2012 high school principals and assistant principals. This survey was a

modified version of the aforementioned teacher survey. The population of high school administrators for the 2011-2012 school year was 51. All school administrators in the population were included in the sample, and all school administrators in the sample were invited to complete the survey.

Instrumentation

The Dimensions of Effective High School Reading Teachers survey (Appendix A) was administered to all 2011-2012 intensive reading teachers of ninth grade students in the target school district. The survey included four sections: preparation to teach adolescent literacy, beliefs related to improving student achievement of non-proficient readers and engagement in professional practices, instructional strategies, and open-ended response questions. Both general instructional strategies and literacy strategies were included in the third section. The survey was developed by the researcher in cooperation with Researcher B for the companion study. School administrators who participated in the study for research question five took the Dimensions of Effective High School Reading Teachers—Administrator Perspective survey (Appendix B), which is a modified version of the teacher instrument. Questions on the surveys were constructed after a comprehensive review of the literature on effective teaching strategies for both general classroom instruction and teaching literacy to adolescents. The surveys were reviewed by knowledgeable educators and literacy experts to establish content validity and improve readability. Edits to the instrument were made after this review.

Procedures

The senior instructional administrator in the target school district and designees reviewed the format and contents of the surveys to ensure that they met the organization's research needs. The researcher then requested and received formal approval from the target school district to implement the research. Approval to commence the research was also received from the researcher's dissertation committee and the university's Institutional Review Board (Appendix E).

After all approvals were received, the researcher requested access to contact information and effectiveness data for all teachers in the population. The specific data that were produced by a staff member from the target school district's Assessment and Accountability Department for each member of the population included the number of students in ninth grade intensive reading courses and the percentage of those students who met learning growth expectations using Florida's value-added model for FCAT Reading in the 2011-2012 school year. An alpha-numeric code was attached to each teacher in place of name to mask individual identity and school affiliation. Each alpha-numeric code was comprised of a letter common to all teachers at the same school and a unique two-digit numeric code for each teacher. The common letter code was requested to facilitate school-level data analysis if needed while still maintaining individual anonymity.

Because some teachers in the target school district taught both ninth and tenth grade students, a procedure was necessary to ensure that each teacher received only one invitation and consent letter (Appendix C), from either this researcher or Researcher B.

Teachers who were connected to more ninth grade than tenth grade non-proficient readers received an invitation from this researcher, while teachers who were connected to more tenth grade than ninth grade non-proficient readers received an invitation from Researcher B. After administration of the surveys was completed, survey responses of teachers who instructed both ninth and tenth grade students were used by both this researcher and Researcher B.

The researcher invited each teacher to participate in the study through placement of the informed consent letter (Appendix C) in the teacher's school mailbox. The informed consent letter included directions for accessing the survey, which was administered anonymously in a web-based application. Anonymity was maintained through the participant's use of the alpha-numeric code instead of name. The code file was maintained by a staff member from the target school district's Assessment and Accountability Department, which was necessary to ensure the anonymity of the data to this researcher, who is an employee of the target school district. Access to individual participant responses was not provided to the target school district, and only school district-level aggregate data were reported in chapter four. This framework ensured that neither the researcher nor school district personnel could link teacher identity to both teacher performance data and survey responses.

Implementation of the administrator survey proceeded in the same fashion, except that school administrators received a slightly different consent letter (Appendix D). Principals and assistant principals were also assigned an anonymous alpha-numeric code, and the alphabetic character was the same as teachers at the school to facilitate

school-level data analysis if needed. Data from administrator surveys were shared but analyzed separately by both this researcher and Researcher B in relation to each researcher's population of teachers.

In addition to the initial consent letter, the researcher provided two follow-up reminders to teacher and administrator participants. The follow-up process, described in detail in Chapter Three, was implemented using methods to ensure that the anonymity created by the code system remained intact. The surveys were available to teacher and administrator participants for a period of 10 weeks.

Data Analysis

Results from the survey items for both teachers and administrators were coded into separate tables in SPSS, a statistical program. Each teacher participant was coded into one of three effectiveness groups (most effective, moderately effective, least effective) using the percentage of students meeting expectations data provided by the staff member from the target school district's Assessment and Accountability Department. After the survey responses were joined with the effectiveness data using the alpha-numeric codes, the researcher used SPSS to generate descriptive statistics and conduct inferential tests. Categorical variables in the first research question were analyzed independently from one another. For the other research questions, interval variables measured by Likert items were aggregated at the construct level. Both descriptive and inferential statistics were generated, and statistically significant findings were further analyzed at the item level. Administrator survey data and qualitative data from both groups were used to confirm or refute quantitative findings.

Significance of the Study

This study sought to contribute to the body of knowledge on improvement of high school students' reading proficiency by illuminating the self-reported differences between the most effective and least effective teachers in a variety of domains including preparation to teach adolescent literacy, beliefs about student achievement, professional practices, and valuation and use of specific instructional strategies. Furthermore, self-report data were triangulated using employee effectiveness data and administrators' perspectives. Analysis of these data revealed differences among the most effective and least effective ninth grade reading teacher groups that provide actionable information for the target school district to use in future planning.

This research departed from the typical evaluation of a specific type of curriculum or program by instead focusing on classroom teachers in their roles as planners, interventionists, motivators, and assessors. The findings of this research can be used by the target school district in a variety of ways, including identification of instructional personnel to teach reading, prioritization of professional learning on specific instructional and reading strategies, and training of school administrators to focus on elements associated with highly effective teachers. It is hoped that the findings in this study will also support improvements nationally in teaching literacy to non-proficient high school students.

Limitations

1. Value-added metrics were introduced in Florida beginning with the 2011-12 school year. Therefore, there was a lack of long-term data to confirm that the quantitative

results from 2011-2012 correctly distinguished the most effective from the least ineffective teachers.

2. The surveys were designed by the researcher, in conjunction with Researcher B for an independently conducted study, to be used in one target school district and within the context of that school district's priorities and interests. Therefore, generalizability of the findings to other settings with different assessment methods or instructional priorities may be limited.

Assumptions

1. Value-added data were correctly calculated by the Florida Department of Education.
2. The target school district correctly identified the population and provided accurate effectiveness data to the researcher.
3. Survey participants responded honestly to all items.

Summary

This research presented an opportunity to deepen understanding of the dynamics of the most effective and least effective high school reading teachers. Surveys were designed to consider the impact of multiple variables that may ultimately explain differences between the most effective and least effective teachers, including preparation to teach reading, teacher beliefs, professional practices, and use of both general classroom and literacy-based instructional strategies. The mixed methods research design provided powerful data and rich narrative to the target school district whose teachers participated in the study.

The findings of this research have important implications for strategic and instructional planning in the target school district. With regards to the variables that distinguished the most effective teaches from the least effective teachers, further research will be needed to deepen understanding of the relationship among those variables. Additional research will also be needed to determine the extent to which differences in the quality of actual classroom-level implementation of identified classroom strategies are associated with differences in teacher effectiveness.

It is the researcher's hope that the findings of this study will assist the target school district in making informed decisions about personnel selection, professional learning, instructional coaching, and evaluation of high school reading teachers. These educators have the enormous responsibility of repairing long-term reading deficiencies in a short period of time and in a climate of high expectations and individual accountability for student learning growth. Educational researchers, policymakers, and administrators should be responsible for supporting this group of teachers by working to discover the underlying dynamics that contribute to student learning and then acting to share and cultivate those success factors with all teachers.

CHAPTER TWO: REVIEW OF LITERATURE

Introduction

This study was undertaken to illuminate the underlying differences among teachers with the highest and lowest rates of success in instructing ninth grade students who are non-proficient readers enrolled in an intensive reading course. Although this issue is of particular importance to the target school district, identifying the most important supports for those struggling to read on grade level in high school is an issue of national significance. Unfortunately, few empirical studies have focused on the developmental needs of non-proficient high school readers or the effectiveness of their reading teachers. The paucity of evidence on high school reading was confirmed by Hattie (2009), whose extensive review of meta-analyses related to student learning revealed not a single meta-analysis on teaching reading beyond the elementary level. Although this study's focus in one school district limited the context of the research to that school district's philosophy and approaches to teaching reading to students who are not proficient, it casts one small pebble into the great gap that exists in the study of what works in high school reading courses.

The fundamental premise of this study is that teacher effectiveness is an important determinant of student achievement. Therefore, this review of the literature begins with an explication of contemporary notions of teacher effects on student learning. The review then continues with an examination of the salient studies related to the research questions tested in the study. Specifically, the researcher was interested in identifying past and current efforts to understand each of the following constructs within the context

of high school reading: preparation to teach reading to adolescents, teacher beliefs about student achievement, general classroom teaching strategies, adolescent reading strategies, and professional practices. The strategies topics were approached with an emphasis on the Marzano instructional model (Marzano, 2007; Marzano, Frontier, & Livingston, 2011), which was adopted at the start of the 2011-2012 school year by the target school district as a result of a legislative requirement to link teacher evaluations to a research-based model of instruction (Student Success Act, 2011). An additional topic of interest is current literature on the role that school administrators play in providing instructional leadership that results in improved teacher performance and, therefore, higher student outcomes.

The researcher's search for literature, especially on the topic of instructional strategies, was undertaken with the guiding principle that selected sources should focus on instruction—whether in general or specific to reading—at the high school level with an emphasis on the frameworks, strategies, and core values embraced by the target school district. Although comprehensive coverage of the voluminous research on reading instruction at the elementary level is beyond the scope of this research, some relevant findings from elementary and middle grades were included to illustrate both the comparative lack of deep study of high school reading and the relevancy of literacy research to primary and secondary education. Flippo (2011) argued that "whether we are elementary, middle, secondary, or college teachers, we are seeing that many of the issues, problems, and research in the field of reading literacy are common to all levels of education" (p. 396). Nevertheless, high school intensive reading teachers who turn to

reading research may struggle to translate best practice from elementary literacy instruction to the challenging realities of teaching high school reading classes, where students can arrive already reading several years below grade level.

The researcher restricted most database and internet searches to phrases such as "ninth grade," "secondary," and/or "adolescent" along with "literacy" or "reading" and additional terms relevant to specific concepts. Databases used for the literature search included ERIC, Education Full Text, Professional Development Collection, ProQuest Dissertations and Theses, and PsycInfo. The researcher also conducted thorough searches of specific sources, including *The Journal of Adolescent and Adult Literacy*. The initial search limitation to secondary/adolescent literacy greatly reduced the number of relevant sources. In cases where secondary research was scarce, the researcher expanded the search to include primary grades for comparative purposes. Much of the available secondary research focused on second language acquisition for English Language Learners or reading remediation for students with disabilities. The current study's population included teachers of English for Students of Other Languages and teachers of students with disabilities in both inclusion and separate classes, so this research is relevant and, in some cases, richer than research on secondary reading in the general education environment. Research from education systems in other countries was included when relevant.

Teacher Impact on Student Achievement

Teacher quality is a major focus of contemporary educational research and policy. There is no shortage of experts who have argued that the classroom teacher is the single

most important variable in student learning (Marzano, 2007; Schmoker, 2006). Goldhaber and Hannaway (2009) crystallized the crux of the teacher quality argument:

> . . . research clearly shows that teacher quality is the most important schooling factor influencing student achievement. Having one very effective versus one very ineffective teacher can make a difference of more than a year's growth in a student's achievement . . . . And having a very effective versus a very ineffective teacher workforce can profoundly influence a country's economic growth trajectory. (pp. 3-4)

Hanushek and Woessmann (2010) quantified this argument through a series of complex economic growth calculations hypothetically catalyzed by increases in test scores of U.S. students on international mathematics and science exams. They found that raising U.S. test scores on the Programme for International Student Assessment (PISA) to the same level as first-place Finland would result in a $112 trillion increase in Gross Domestic Product over 80 years. These test score increases would be the result of a series of dramatic education reforms. Hanushek (2009) has argued that one such policy change is teacher deselection: permanent replacement of the lowest performing educators with at least average teachers, resulting in net improvements in student learning growth.

It is within this context that many states have implemented reforms in the areas of teacher evaluation, retention, tenure, and compensation. The U.S. Department of Education (2012) has given more than $4 billion to states as part of its Race to the Top grant competition. Increasing teacher quality through changes in human resources policy has been a major focus of this initiative. Another priority funded by Race to the Top is

improvement of professional learning opportunities for teachers. Some have argued that the importance of teacher development has been overshadowed by other initiatives:

> Unfortunately, current educational policies and funding practices continue to focus on program selection, school organization, and student test scores—not teachers, the contexts in which they teach, or the leadership and professional development required to ensure "teacher quality." (Moats, 2009, p. 387)

The policy debate over whether teacher quality can be improved through legislative and regulatory action or through professional learning will continue and may be informed by efforts to identify which characteristics actually differentiate the most effective teachers from the least effective teachers.

Hanushek (2010) conceded that, despite consensus that effective teachers have a far greater positive impact on student achievement than ineffective teachers, the factors that clearly distinguish these two groups have eluded researchers. Successful identification of the attributes and practices that differentiate the most and least effective teachers of high school reading could transform pre-service training and professional learning activities to emphasize cultivation of these skills (Dixon et al., 2012). The subsequent sections in this review of literature identify and examine some, but certainly not all, possible factors that could distinguish teacher effectiveness. These concepts were embedded into the current study of ninth grade intensive reading teachers in the target school district.

Preparation to Teach Reading to Adolescents

In the quest to improve reading instruction, it is important to begin with the teacher's preparation and qualifications. Variables such as number of years of classroom teaching experience, undergraduate and graduate degree major and coursework in reading, certifications, and other professional learning experiences may be important contributors to differential classroom performance because these indicators may reflect a higher degree of teacher knowledge of effective classroom practices and/or the reading process. There has been much discussion of the relationship between preparation and performance in policy circles. However, scholarly literature on the relationship between teacher qualifications and teacher quality is vast and sometimes contradictory.

Darling-Hammond (2000) conducted a large scale analysis of teacher quality by comparing the mid-1990s qualifications of 52,000 public school teachers from 5,600 school districts to state-level results from the National Assessment of Educational Progress (NAEP) over the same time period. The findings included a positive correlation between teacher quality indicators (in-field degree and certification status) and student achievement. However, this conclusion was based only on fourth and eighth grade NAEP scores. Whether this link would have been found in 10th-grade reading data is unknown. Another limitation of this study was that the results were aggregated by state, thus ignoring potentially important school district-level and school-level variance related to factors such as demographics, leadership, human resource policies, and school climate. A divergent study by Hanushek, Kain, O'Brien, and Rivkin (2005) examined the question of correlation between teacher qualifications and teacher quality, but with a different

methodology. These researchers examined teacher qualifications and student test scores in Texas from 1989-2002. They used a value-added statistical model to measure each teacher's contributions to student learning. The researchers found no significant difference between teacher quality and student outcomes based on the variable of certification test results. One common finding by both the Darling-Hammond (2000) and Hanushek et al. (2005) studies was no significant evidence that an advanced degree (master's degree or higher) positively influenced student achievement.

Another line of inquiry with respect to teacher qualifications is an effort to measure educators' actual knowledge of reading processes instead of indicators of preparedness to teach. Although reading has been the centerpiece of elementary education preparation programs since the 1980s (Darling-Hammond, 2000) and secondary education reform has emphasized the importance of instruction of students in reading strategies, research on teacher knowledge of reading processes has continued to reveal considerable gaps. A study of nearly 200 teachers serving urban, low-performing schools in kindergarten through fourth grades found 65% of the sample had only a limited or partial understanding of concepts related to elementary reading development (Moats & Foorman, 2003). In a more recent study of 300 elementary teachers in Michigan, results of a teacher-completed questionnaire about certification, experience, and knowledge of reading processes were linked to students' results on a standardized test of word and reading comprehension (Kelcey, 2011). Among several findings, the researcher noted that teachers with greater knowledge of reading processes tended to hold

a standard elementary certification along with reading certification and a master's degree in literacy.

Because the target school district for this study is in Florida, it is also important to consider whether teachers who have earned the state's kindergarten through 12th-grade reading academic endorsement on their Florida Educator Certificate have a greater impact on student achievement than teachers who lack this credential. The Florida Reading Endorsement is a specialized designation that any certified kindergarten through 12th-grade educator can earn through completion of additional professional learning in scientifically-based reading research, either through coursework taken at a postsecondary institution or in-service completed while employed with a school district (Florida Department of Education, 2012b). The endorsement requires 15 semester credits (300 hours) of additional learning in the teaching of literacy and includes five competencies: foundations of reading instruction, application of research-based instructional practices, foundations of assessment, differentiated instruction, and demonstration of accomplishment (Florida Department of Education, 2011c). All teachers of secondary reading courses are required to obtain this endorsement—unless otherwise certified in reading—either prior to or while teaching courses in remedial reading.

Given the many additional hours of study in the foundations of reading, the assumption underlying the reading endorsement is that those who have earned this designation have a greater knowledge of reading practices and, therefore, can have a greater impact on student achievement. This premise has been largely untested. Greenwell (2009) found that reading endorsed teachers implemented more literacy

strategies than non-endorsed teachers, but the study involved just four high school teachers in a qualitative research design. Interestingly, the endorsed study participants believed that the reading endorsement process was too lengthy and had an insufficient focus on the needs of high school teachers. A larger study would be needed to verify these findings.

The lack of consensus in the literature on the impact of teacher qualifications and knowledge of reading processes on student achievement in high school reading justifies the inclusion of the first research question in the current study. Survey items were constructed to gather data about participants' educational backgrounds, years of experience, subject area(s) of graduate degrees, and recent professional learning on adolescent literacy instruction.

Beliefs About Student Achievement

If teacher quality has a direct impact on student performance, then the attitudes and dispositions that teachers bring to their classrooms each day are worthy of study to determine whether differences in effectiveness are harbored in this construct. If deeply ingrained beliefs about student achievement are shown to have a significant influence on student learning, then there may be important policy implications for educator recruitment and hiring processes. This issue is addressed in the second research question of this study. Three separate but linked sets of teacher beliefs were prominent in the research: teacher self-efficacy, motivating students, and factors external to the classroom.

Self-Efficacy

Self-efficacy is defined as "people's beliefs in their capabilities to perform in ways that give them control over events that affect their lives" (Bandura, 2000). By extension, teacher self-efficacy is "the extent to which teachers believe they have the capacity to affect student performance" (Ashton, 1984, p. 28). Self-efficacy for teachers of struggling readers involves educators' degree of conviction about their ability to provide effective instruction in reading skills and strategies (Cantrell & Hughes, 2008). Finally, teacher self-efficacy when working with at-risk populations may also involve belief in ability to motivate students to overcome academic challenges and personal adversities.

Teacher self-efficacy has been studied in a variety of ways over the last 25 years. With the emerging emphasis on quantifying both the learning gains of students and the proportion of those gains attributable to the influence of the classroom teacher, one promising area for further research is whether teachers with higher levels of self-efficacy also create the most learning growth in their students. Akbari and Allvar (2010) studied the self-efficacy of 30 public high school teachers of English as a second language in one province of Iran. The researchers administered a published survey of self-efficacy to participants to measure this construct. Self-efficacy scores were then linked to the results of each teacher's students on an annual assessment given at the end of 11th grade. The researchers found a statistically significant correlation between teacher self-efficacy and student outcomes, $r\,(30) = +.855$, $p < .001$. Although the small size of the sample limited generalizability of the researchers' findings, further study of this relationship is

warranted. If teacher self-efficacy is truly strongly correlated with student outcomes, this association would provide profound direction for school districts in terms of teacher recruitment and retention processes.

Motivating Students

Another set of teacher core beliefs worthy of study is how educators perceive their role in motivating students to be successful. Although there has been much written about the theoretical construct of motivation and how it impacts student learning, there is less clarity about the contributions that classroom teachers make to students' motivation levels. Some evidence, pieced together from multiple studies, suggested that teachers can positively impact student motivation when mastery is emphasized over performance, assigned work is purposeful and meaningful, improvement is rewarded, and choices are offered, but these claims have not been widely tested in classroom-based studies (Urdan & Schoenfelder, 2006). One study of over 3,000 primary students (ages 4 through 12) and nearly 200 teachers in the Netherlands verified a positive relationship between the construct of teacher self-efficacy and student motivation to learn (Thoonen, Sleegers, Peetsma, & Oort, 2011). In the current study of teachers of non-proficient readers in ninth grade, the researcher was interested in whether differences in beliefs about responsibility for motivating students were related to student achievement.

Factors External to the Classroom

There has been a growing consensus among researchers and policymakers that quality of instruction has a greater impact on student achievement than any other variable (Schmoker, 2006). While the work of Marzano (2007) and Hattie (2009) has shown that

use of effective teaching strategies does result in student outcome improvements, there are complex interactions with variables that exist beyond the walls of the classroom. Home and family characteristics, including socioeconomic status and parental education level, have been traditionally cited as having a large impact on student outcomes. Hattie (2009) examined four meta-analyses covering nearly 500 studies on the impact of socioeconomic status, with an aggregate effect size of $d = 0.57$; two meta-analyses on home environment ($d = 0.57$) and 11 more on parental involvement ($d = 0.51$) found similar relationships. However, Hattie noted that the impact of socioeconomic status may be greater for younger students than older students and a greater challenge for schools (where groups of children from low socioeconomic families may be clustered together, thus requiring more resources) than for individual students.

Less is known about the extent to which rank-and-file teachers agree that their work in the classroom outweighs all other variables that impact student achievement. Guskey and Passaro (1994) conducted a study of 342 teachers and pre-service teachers in grades kindergarten through 12 using an efficacy instrument. The researchers found complex interactions between self-efficacy beliefs and external factor beliefs. Some teachers believed their efforts could override the influence of even strongly adverse external factors, while other teachers believed that the external factors trumped classroom impact. These mixed results suggest the need for a deeper understanding of the relationship between teacher efficacy and external factors. Replication of the Guskey and Passaro study in a variety of school and teacher settings would be useful to provide a

clearer picture of educators' views of their personal impact on student learning versus the impact of external factors.

The current study sought to gain a better understanding of the relationship between teacher beliefs and student outcomes in the context of working with non-proficient ninth grade readers. Because of the interactions among self-efficacy, motivation, and external factors, this research question is multifaceted and difficult to untangle. A question for future consideration is how these variables interact in the creation of teacher expectations for student success. Marzano (2007) crystallized the significance of these issues into a simple argument about the impact of teacher expectations on student outcomes:

> If the teacher believes students can succeed, she tends to behave in ways that help them succeed. If the teacher believes that students cannot succeed, she unwittingly tends to behave in ways that subvert student success or at least do not facilitate student success. This is perhaps one of the most powerful hidden dynamics of teaching because it is typically an *unconscious activity* [emphasis added]. (p. 162)

If this contention is verified in the current and future studies, there are tremendous implications for both policy and professional practice.

General Classroom Teaching Strategies

The contemporary focus on three themes in public education reform—school improvement, teacher quality, and student achievement—has coincided with an effort to identify instructional strategies that are associated with higher student outcomes. The

nexus between these themes and research-based classroom instruction is simple: proponents believe that infusing proven strategies into classroom instruction is the key to achieving school improvement, increasing teacher quality, and raising student achievement. Several frameworks for using evidence-based strategies have emerged, but three have become especially important in Florida school districts: the work of Danielson (2007), Marzano (2007), and Hattie (2009). The first two authors introduced instructional models that were approved for use as teacher evaluation systems in Florida school districts (Florida Department of Education, n.d.), and the third published a major analysis of meta-analytic studies widely respected for both its high quality and its ease of use for practitioners. The significance and complexity of these frameworks necessitates consideration of each separately.

Danielson Instructional Model

Danielson's *Enhancing Professional Practice: A Framework for Teaching* was first published in 1996 for instructional purposes and then significantly updated in 2007 to support teacher evaluation. Danielson's model was approved by the Florida Department of Education in 2011 as an option for school districts in teacher evaluation redesign. The Danielson framework has been characterized as constructivist because of its basis in "research findings that focus on principles and methods of instruction designed to generate knowledge and meaning from an interaction between their experiences and their ideas" (Florida Department of Education, n.d., p. 2). The Danielson model was heralded as groundbreaking at the time of its initial release for bringing research to teacher evaluation and for striking a balance between flexibility for

use across grades and discipline with sufficient detail to differentiate performance levels (Marzano, Frontier, & Livingston, 2011).

Marzano Instructional Model

Marzano's *Art and Science of Teaching* (2007) is his seminal work for introduction of a model of instruction. Like Danielson, Marzano updated his original model to support summative evaluation of teachers (Marzano, Frontier, & Livingston, 2011). The Florida Department of Education classified Marzano's framework as behavioral, incorporating strategies "that, done correctly and in appropriate circumstances, have a positive probability of improving student learning" (Florida Department of Education, n.d., p. 1-2). The Marzano model is centered on 10 design questions that teachers address during the process of planning for instruction. Every design question contains two or more instructional strategies, each selected for inclusion because of its positive correlation with student learning. The research-based connection between the strategies and student outcomes led Marzano, Frontier, & Livingston (2011) to characterize the model's Domain 1 (comprised of 41 classroom strategies) as possessing a "direct causal link with student achievement" (p. 29). Marzano's second, third, and fourth domains include teacher behaviors that support effective instruction, including planning, reflection, and collaboration. These attributes are discussed in the section below on professional practices.

The Marzano framework is particularly important within the context of the current study because the target school district used it as both an instructional model and teacher evaluation tool for the first time during the 2011-2012 school year. A handful of

the Marzano strategies were prioritized in the first year of implementation, with others to be implemented in subsequent school years. Although none of the Marzano strategies are newly conceived notions of instruction, implementation of the Marzano model for teacher evaluation purposes elevated its significance in the current study's efforts to identify the differences between teachers with more and less student learning growth.

Hattie's Research

Hattie is the author of *Visible Learning* (2009), an extensive study of the factors that are most likely to influence student learning. Hattie's findings were drawn from more than 800 meta-analyses covering over 50,000 studies. Unlike Danielson and Marzano, Hattie's research did not lead to a single instructional model or evaluation system. He clarified:

> The aim [of this book] is to provide more than a litany of "what works," as too often such lists provide yet another set of recommendations devoid of underlying theory and messages, they tend to not take into account any moderators or the "busy bustling business" of classrooms… (Hattie, 2009, p. 3)

Instead, Hattie adopted a broader approach to learning that included multiple levels of factors: student, home, school, teacher, and curriculum. Hattie's coverage of the latter two environments included strategies and practices embedded in the Danielson and Marzano models.

Strategies of Emphasis

The current study was notably framed by the target school district's decision to prioritize specific strategies from the Marzano model during the school year in which

teachers were surveyed and student results were collected. These strategies are briefly introduced in this review of literature and were incorporated into the survey given to teachers as described in first and third chapters. For this research, the fourth research question seeks to determine whether more and less effective teachers of ninth grade intensive reading courses differ in their value and use of these instructional strategies.

Learning Goals

A significant body of research has arisen around the practice of establishing learning goals in the classroom and explicitly teaching those goals to students. Hattie (2009) reported a large effect size (d = 0.56) across 11 meta-analyses of over 600 studies on establishing challenging learning goals for students. Learning goals become even more powerful when combined with the use of scales and rubrics that describe and differentiate levels of student performance toward mastery of the learning goal (Marzano, 2007). Thus, the learning goal communicates knowledge to be learned and the scale functions as a feedback mechanism.

When linked together, learning goals and scales are a powerful tool for guiding student work. Hattie (2009) explained the significance of the link between goals and feedback:

> The scenario is that effective teachers set appropriately challenging goals and then structure situations so that students can reach these goals. If teachers can encourage students to share commitment to these challenging goals, and if they provide feedback on how to be successful in learning as one is working to achieve the goals, then goals are more likely to be attained. (p. 165)

The impact of feedback has been studied by many researchers; Marzano (2007) cited nine meta-analyses on the positive effects of feedback, with effect sizes for these studies ranging from a modest $d = 0.26$ to a very large $d = 1.47$. Hattie (2009) concurred that effect sizes of meta-analyses on the value of feedback varied greatly, but that feedback linked to learning goals was among the most effective forms of feedback. One way to assess the quality of feedback is to consider the meaning that students derive from it and its impact on their future learning (Brookhart, 2008). When students understand the learning goal and scale, useful feedback can be provided within the context of their progression toward mastery of content.

Communication of learning goals to students may be especially important in the context of high school reading classes, where non-proficient readers may need additional supports to understand the connection between assigned texts and larger aims. One clinician asserted:

> If we don't help students pull out essential information by giving them a purpose for their reading, they will often get lost in the extraneous details. When we share a clear instructional purpose, we give our students a lens through which to read the piece. (Tovani, 2004, p. 59)

Thus, to the extent that goals and scales provide an introduction to new knowledge, they serve as important context clues when students are presented with complex text. Scales can also be used to frame skill proficiency. For example, a fluency scale can be used for self and peer assessment during oral reading practice (Taylor, 2007). Finally, homework can be an effective learning strategy when the assignment is explicitly tied to the learning

goal so that students understand its purpose and some form of feedback is provided on student progress (Hill & Flynn, 2006).

Clearly, the research suggests that use of goals, scales, and feedback can have a profound impact on student learning. The current study seeks to determine whether high school intensive reading teachers in the target school district recognize the value of these strategies and use them regularly.

Classroom Environment

Student learning must occur in the context of the climate of the teacher's classroom. An effective classroom environment facilitates learning by making students feel comfortable and removing barriers to academic instruction (Hattie, 2009). The ideal learning environment has been conceptualized as a "classroom community," a place where it is "psychologically safe to learn" (Taylor, 2007, p. 4). In this type of classroom, teacher-student and student-student relationships are built on mutual respect and trust.

In summarizing the results of meta-analyses of classroom climate studies, Hattie (2009) argued that student learning is most enhanced when classrooms incorporate "goal directedness, positive interpersonal relations, and social support" (p. 103). In these classrooms, routines are established and followed, learning time is optimized for maximum efficiency, and a variety of activities and choices keep students interested in the curriculum.

A teacher who is aware of the impact of classroom environment on student learning continually asks two questions: "Do I have their attention?" and "Are they engaged?" (Marzano, Pickering, & Heflebower, 2011, p. 19). The complex interaction

among many variables—including the physical organization of the classroom, the teacher's rapport with students, and the style of classroom management—determines classroom environment, and thus effective teachers have many choices when considering how to improve student engagement.

One important attribute of classrooms that are optimized for learning is the presence of a print-rich environment. Taylor (2007) identified the print-rich environment as one of five non-negotiables for all classroom communities. She defined print-rich environments as having two attributes: "…the bulletin, boards and academic displays are probably student developed or are displays of student work" and a classroom library is available for students (Taylor, 2007, p. 7). Print-rich environments may also include word walls, which are visuals designed to capture the meaning of difficult words encountered in text; student-created word walls promote classroom engagement and reinforce vocabulary acquisition (Taylor, 2007).

Research on classroom environment includes classroom management but goes beyond it to set the stage for academic learning. For example, print-rich environments with classroom libraries support the sustained silent reading program discussed below in the reading strategies section. Classroom environment is also a manifestation of fundamental beliefs held by the teacher as presented in the previous section.

Other Content Strategies

Nonlinguistic strategies are especially important in the instruction of non-proficient readers because they appeal to learners whose visual modality can be harnessed to wade through challenging texts and concepts. Graphic organizers help students to

process otherwise abstract concepts (Taylor, 2007). For example, concept maps and related visual strategies allow students to uncover relationships that might otherwise be hidden in complex test (Irvin, Buehl, & Klemp, 2003). Pictures and storyboards have been used to construct meaning and cultivate expression in visual learners, including students with dyslexia (Rief, 2007). Visuals present in the text can also assist students in predicting text content (Irvin, Buehl, & Klemp, 2003). Visualization strategies can be used to help students augment the meaning of text through mental imagery (Harvey & Goudvis, 2000).

Chunking content refers to the teacher's division of new material into manageable segments of information that students can efficiently process (Marzano, 2007). This research-based strategy is even more important when working with either lengthy text such as whole novels or highly complex text because, in these situations, it is easy for students—especially those with reading deficiencies—to overlook meaning or become frustrated (Gallagher, 2009).

The use of similarities and differences is a timeless learning strategy supported by research. Similarities and differences facilitate learning by helping students to connect or differentiate concepts and ideas (Hill & Flynn, 2006). One meta-analysis of 52 teacher action research projects that used similarities and differences found a medium effect size ($d = 0.52$), which equated to a 20 percentile gain in student learning (Haystead & Marzano, 2009). This result ranked similarities and differences third—behind only learning goals and tracking student progress—on a list of 15 strategies associated with positive gains in student learning in the same meta-analysis.

Cooperative learning has become a staple of effective instruction in the research literature and classrooms throughout the United States. Aggregated meta-analyses have shown higher effect sizes for cooperative learning than competitive or individualistic learning (Hattie, 2009). In addition to academic benefits, cooperative learning facilitates the teaching and practice of skills such as perspective taking, responsible interaction, and conflict resolution, which are increasingly important attributes of productive citizens living in a complex, globalized society (Marzano & Heflebower, 2012). The use of pairs and small groups to facilitate reading instruction has the added benefit of creating a positive, productive social organization for the class, which can be reassuring to students who are transitioning into a high school environment (Irvin, Buehl, & Klemp, 2003). Cooperative learning structures also give English Language Learners more opportunities to practice speaking with peers than in traditional direct instruction (Hill & Flynn, 2006).

Adolescent Reading Strategies

Much attention has been given to the promise of research-based reading intervention programs, including expensive commercial products. Recent studies have focused on the shortcomings of programmatic approaches to high school reading instruction. A case study of seven middle school students with reading deficiencies was undertaken by Pitcher, Martinez, Dicembre, Fewster, and McCormick (2010). Despite different curricular and intervention approaches at each child's school and home, the researchers found that none of the students had access to customized strategies to address their specific reading deficiencies. The researchers called for "focusing on the adolescents' needs rather than just putting them in a program. Instruction that focuses on

needs requires that funds be spent on hiring qualified reading specialists instead of buying one-size-fits-all programs" (Pitcher, Martinez, Dicembre, Fewster, & McCormick, 2010, p. 643).

The target school district for this study used several high school reading intervention programs, including SRA/McGraw-Hill, READ 180, System 44, USA Today, Journeys, and Reading Plus. Although each program has its proponents and naysayers within the school district, no single product or approach has been the panacea for high school students who are non-proficient readers. The school district has also prioritized a series of reading strategies and frameworks, and these are the focus of the remainder of this section of the literature review.

Text coding is a structured method for students to interact with a reading passage of any type or complexity by highlighting, underlining, circling, and/or coding text during the reading process using symbols to note important, interesting, or confusing information (Irvin, Buehl, & Kemp, 2003; Tovani, 2000). Text coding is a scaffolded strategy that begins with the teacher modeling effective use of marking up the text and continues over time until students can use the skill with automaticity. One way that text coding is taught to students is through teacher modeling of thinking aloud, a strategy which "make[s] invisible mental processes visible" by vocalizing internal thoughts that emerge while reading text (Tovani, 2000, p. 27). Teachers who vocalize their thought processes while reading provide their students with a mental model of what good readers do while they are engaged with text (Tovani, 2004). A related strategy is text annotation, in which students use sticky notes to write down questions of interest that arise as they

read (Probst, 2007). The ultimate goal of text coding is to promote active student thinking while reading text, which ensures attention and engagement. In the target school district, text coding has been taught as a strategy that all students can utilize in content area classes and on the Reading FCAT.

Question-Answer Relationships (QAR) is a strategy that supports inferential thinking by helping students to classify any question into one of four possible categories (Irvin, Buehl, & Klemp, 2003; Taylor, 2007). Each of these categories is paired with a specific response approach. The goal of the strategy is to support students who, when faced with complex text, may choose to give up by skipping difficult questions or providing insufficient answers. The QAR strategy could therefore be useful for students on standardized tests that contain dense, technical text.

Sustained silent reading is a framework in which students use class time to engage in voluntary reading activities. A central element of sustained silent reading is student choice of reading material, which increases student engagement and motivation (Lee, 2011). A survey of 1,765 middle school students from 23 schools in both urban and rural settings revealed that "high-engagement reading and language arts classrooms would include time to read, time to listen to teachers read, and access to personally interesting materials" (Ivey & Broaddus, 2001, p. 316). Unfortunately, student choice can be elusive at the secondary level:

> One of the easiest ways to build some choice into the students' school day is to incorporate independent reading time in which they can read whatever they

> choose. Yet this piece of the curriculum is often dropped after the primary grades. (Biancarosa & Snow, 2006, p. 16)

The target school district has embraced sustained silent reading, in conjunction with classroom libraries that include an array of genres and culturally relevant literature, as a regularly scheduled activity in intensive reading classes. Inclusion of contemporary young adolescent literature, such as graphic novels, appeals to digital native learners who are interested in multi-modal literacies (Lesesne, 2007). Tatum (2007) has also identified a "textual lineage" of novels that he has used with African American adolescent males to increase the cultural relevance of text in their lives.

One extension of the sustained silent reading framework is the reading response log, which is used by students to record their thoughts at the end of a sustained silent reading session. This strategy promotes writing and reflection; it also gives the teacher an opportunity to monitor students' interests and use of strategies while reading authentic texts (Tovani, 2004). The use of logs or other products such as storyboards creates accountability for independent reading time and gives students a voice with which to communicate their enjoyment of the text and the reading process (Taylor, 2007). Another application of sustained silent reading is encouraging students to read at home. Requiring or reinforcing students to read at home supports improvements in fluency and reinforces strategies taught in class (Fisher, Lapp, & Frey, 2011). The key question is whether the benefits of sustained silent reading—independent reading and student choice—work well together to positively impact student learning growth.

Teacher modeling of the reading process promotes oral language comprehension and allows students to see how a fluent reader processes a piece of text (Taylor, 2007). Practitioners have endorsed the value of modeling reading:

> I am the best reader in the room, and as such, it is imperative that I let [students] in on how I tackle the initial confusion of a new book. I want my students to know that reading difficult text is hard even for the teacher—that it is normal to be confused. I wrestle with the text in front of them, and in doing so, will often have students chart the strategies I use to make sense of the book. By modeling my own confusion, and by demonstrating how I cope with the confusion, my students are eased into the difficult text. (Gallagher, 2009, p. 100)

Modeling is an early step in the process of teaching new reading strategies; teacher demonstration of a strategy provides students with an actual example of successful implementation (Harvey & Goudvis, 2000). Thus, teacher modeling of reading serves multiple purposes: demonstrating the process used by fluent readers, demonstrating strategies that students can use to process text, and communicating the enjoyment of reading.

There are a variety of other strategies that structure the learning environment to promote student reading practice. Guided practice is a scaffolded approach to using reading strategies that begins with teacher modeling and ends with student use of the strategy in peer groups, which facilitates both feedback and discussion about thought processes (Harvey & Goudvis, 2000). Paired/partner reading occurs when two students silently read the same text and then dialogue about the reading, with one person serving

as recaller and the other as listener (Irvin, Buehl, & Klemp, 2003). The teacher can substitute him or herself into a pair to facilitate individualized instruction and support. Gallagher (2009) advocated for the routine use of "second-draft" and "third-draft" reading to capture a "level of beauty that usually is not discovered until students revisit the text" (p. 97); this approach is consistent with the use of repeated, or hot and cold, reading to promote increased oral fluency and student confidence by reading the same text excerpt multiple times (Dowhower, 1987).

The target school district in the current study has also made an effort to extinguish ineffective practices. For example, round robin reading has been shown to inhibit comprehension and reduce student engagement (Irvin, Buehl, & Klemp, 2003). In spite of clear research to the contrary, round robin reading can still be found in classrooms today. Thus, in the current study, round robin reading was included on the survey to determine if there are teachers who still value this strategy and, if so, whether those teachers are associated with lower rates of student learning growth.

Professional Practices

The work that teachers complete away from students can have a profound influence on student achievement. In the current study, the third research question asks to what extent the most and least effective teachers of high school reading classes are different in the value they place on activities like planning, reflection, and collaboration. In the Marzano evaluation model (2011), these activities are contained in Domain 2, Domain 3, and Domain 4, respectively.

Planning & Reflection

Planning includes all of the activities that teachers perform to prepare for instruction, while reflection includes the processing of information gleamed from lessons to assist the teacher with future instructional improvements. The dimensions of planning and reflection are also experiencing tremendous change within the context of the above discussion of increasing expectations for collaboration in schools. New models of collaborative planning and reflection include lesson study. This approach to instruction, adapted from schools in Japan, involves teams of teachers who work together to plan a lesson and then collect data on the lesson's impact on student outcomes. Droese's (2010) case study of three kindergarten through eighth grade schools implementing lesson study revealed that teachers cited stronger teams, greater collegial trust, and more teacher-leadership opportunities as benefits of this framework for planning and reflection.

The central issue surrounding planning and reflection is time. Results from a survey completed by 21,770 teachers in Kansas showed that 73% of teachers had less than five hours of non-instructional time available each week, and 45% of respondents did not believe that there was adequate time available to collaborate with colleagues (Center for Teacher Quality, 2006). More recently, a similar survey was given to 100,000 teachers and administrators from North Carolina with equally mixed results: only 27% of respondents did not believe that there was adequate time for collaboration with colleagues, but 54% reported spending less than one hour per week on collaborative planning (New Teacher Center, 2012). If teachers perceive that they lack the time to

engage in meaningful planning, introspective reflection, and productive collegiality, then it will be difficult to reap the benefits of these three professional practices.

Collaboration

Just a few years ago, teachers conducted their work in secluded conditions: "The traditional school often functions as a collection of independent contractors united by a common parking lot" (Eaker, as cited in Schmoker, 2006, p. 23). One dynamic of the major changes underway in teacher quality reform is that educators are increasingly expected to collaborate, instead of working in isolation, to support student learning (Dufour, Dufour, & Eaker, 2008). The evolution of teaching from reclusive to cooperative has been greatly accelerated through reconciliation of two competing views of the profession: one coveting independence and academic freedom, the other craving collegiality. The former condition has been labeled *isolationist* (Schmoker, 2006) and outdated:

> [Teachers] are the last bastion of the would-be self-employed, having really only moved our 19th-century one-room schoolhouses into larger buildings. Many of us try to improve, as best we can, without taking real risks or giving up even a shred of our independence. (Wagner, 2004, pp. 40-41)

Talbert and McLaughlin (2002) proposed a merger of independence and collegiality by conceptualizing an "artisan community" where "teachers work together to improve their success with particular students" (p. 326). Over time, research has demonstrated the power of working together: "…when teachers are given the time and tools to collaborate they become life-long learners, their instructional practice improves, and they are

ultimately able to increase student achievement far beyond what any of them could accomplish alone" (Carroll, Fulton, & Doerr, 2010, p. 10). It is within this framework—that collaboration and collegiality can contribute to student achievement—that Marzano (2011) embedded these concepts into the fourth and final domain of his instructional evaluation model.

One important method for organizing collaborative teams in the target school district of this study is the professional learning community, a collegial structure designed "to ensure the ongoing, job-embedded learning" of professional educators (Dufour & Marzano, 2011, p. 21). Professional learning communities represent a commitment to ongoing conversation about instruction. This is a departure from traditional staff development models that emphasize occasional meetings, commercial products, and expert speakers. These activities have been criticized as inauthentic:

> We have struck a grand bargain: if you sit through our workshops, we promise not to make any real claims on your time or practice. We'll allow you to work alone while assuming (wrongly) that our programs and training are having a positive impact on practice, despite the lack of team-based efforts to implement and adjust practice on the basis of assessment results. (Schmoker, 2006, p. 26)

Although professional learning communities have been incorporated into all schools and disciplines in the target school district, including high school intensive reading teachers, further study is needed to determine whether these teachers believe that collaboration leads to improved classroom effectiveness and, therefore, higher student achievement for their non-proficient readers.

Role of Instructional Leadership

The contemporary era of school reform has transformed the business of educational leadership. At the macro level, policymakers have implemented numerous structural reforms including charter schools, voucher programs, class size limits, and evaluation/compensation systems. In a rebuke of efforts to fix schools through policy, Hattie (2009) inquired:

> Why do such issues as class size, tracking, retention, summer schools, and school uniforms command such heat and strong claims? The discourse of schooling is often more in terms of such notions, which, while highly visible, can often have zero effect or the opposite effect to the one intended on achievement. Such cosmetic or "coat of paint" reforms are too common. . . .The most powerful effects of the school relate to features *within* [emphasis added] schools. . . (pp. 106-107)

Likewise, Dufour, Dufour, and Eaker (2008) lamented, "the top-down impetus of the excellence movement and the sanction-ridden provisions of [No Child Left Behind] failed to build the internal capacity and internal accountability essential to continuous improvement" (p. 64). These and other commentators believe that true school reform occurs in the trenches of American public education—at the building and classroom level.

Fortunately, one positive development in the contemporary reform period is the transformation of the principalship from an operations/management orientation to an instructional leadership paradigm. In one of the most recent perspectives on instructional

leadership, Dufour and Marzano (2011) asserted that "if one of the most important variables in student learning is the quality of instruction students receive each day, then schools must utilize strategies that result in more good teaching in more classrooms more of the time" (p. 20). In their list of nineteen principal responsibilities, Dufour and Marzano included "engaging staff in the ongoing review and discussion of the most promising practices for improving student learning" (p. 55). The underlying assumption of this statement is that school administrators *know* the research on effective instruction and prioritize the teacher observation and feedback process. In the fifth research question of the current study, the researcher seeks to determine to what extent administrators in the target school district value the use of effective instructional strategies and observe those strategies used in intensive reading classrooms.

Conclusion

This review of literature made a broad sweep across just several of many factors that may contribute to differentiation of teacher effectiveness as measured by student learning growth. This review was not intended to exhaust all of the literature on any single approach to teaching and learning. Instead, the research studies and expert commentary presented in this chapter have framed the five research questions posed by this study within the context of the complex challenges that confront teachers of ninth grade non-proficient readers each day. The target school district has sought to better understand which classroom practices and teaching strategies are associated with student learning growth and teacher effectiveness. Taken as a whole, the literature has suggested that the answers to these questions are not apparent because few researchers have focused

their studies on the challenges of ninth grade readers and many of the variables are closely connected and therefore difficult to parcel out. The next chapter presents the methodological approach and implementation plan for this research.

CHAPTER THREE: METHODOLOGY

Introduction

This study was undertaken for the purpose of identifying professional and instructional characteristics that are associated with the most effective and least effective teachers of ninth grade intensive reading courses. A better understanding of teacher practices and instructional strategies that may increase—or reduce—student learning growth would have a variety of applications, including hiring and scheduling of teachers as well as frameworks for professional learning.

A mixed methods approach was adopted for this study of teachers in one Florida school district. First, a quantitative measure of student learning growth was used to determine teacher effectiveness. Next, teachers and school administrators in the sample were invited to complete a survey that included both Likert and open-ended items. Survey responses were connected to teacher effectiveness data, and then both descriptive and inferential statistics were used to answer the five research questions presented in the first chapter. Additional information is presented in the following sections: participants, instrumentation, data collection, and data analysis.

Approval of this study by the target school district included a requirement that the researcher work through a staff member in the school district's Department of Assessment and Accountability for services related to identification of potential participants and coding of data to ensure the anonymity of the participants to the researcher. Information on the work performed by this staff member is included when relevant.

Review of Research Questions & Variables

Research questions and variables were presented in the first chapter, and a summary of this information is located in Table 1. A total of five research questions were included in the study. The first four research questions examined whether the most effective and least effective ninth grade intensive reading teachers possessed different characteristics in the areas of preparation to teach reading (first research question), beliefs about student achievement (second research question), professional practices (third research question), and valuation and use of specific instructional strategies (fourth research question). The fifth research question sought to understand whether administrators could identify the characteristics associated with the most effective and the least effective teachers. For each research question, effectiveness was the dependent variable and the construct unique to that question served as the independent variable.

Participants

This study was conducted in one suburban Florida school district with approximate total enrollment of 63,000 students and approximate high school enrollment of 20,000 students. The school district included nine traditional high schools and two centers with students enrolled in high school grades. The study's framework required two independently selected samples: classroom teachers and school administrators. Different methods were used to identify potential participants in each sample.

For the ninth grade intensive reading teacher group, the researcher sought to identify 2011-2012 high school teachers who were responsible for providing intensive reading instruction to ninth grade students who earned a less than proficient score

(Level 1 or Level 2) on the 2011 Florida Comprehensive Assessment Test (FCAT) in Reading. The researcher requested that the aforementioned staff member from the target school district's Department of Assessment & Accountability use the school district's student information and scheduling system to compile a list of these teachers, whose names were then converted to alpha-numeric codes by the staff member to ensure anonymity of participants to the researcher. Table 2 includes a list of Florida course numbers used to identify these teachers at each of the 11 school sites with high school enrollment; these course numbers include general education students, English-language learners (ELL), and students with disabilities (SWD). A total of 79 teachers were initially identified as teaching these courses to students in the ninth grade during the 2011-2012 school year, but only 69 were still actively employed by the school district during the 2012-13 school year. Given the small number of teachers in this group, the researcher elected to invite all 69 teachers to participate in the study.

Table 2

Course Numbers Used to Identify Population of Intensive Reading Teachers

Course Number	Course Title
1002380	Developmental Language Arts through ESOL
1002381	Developmental Language Arts through ESOL (Reading)
1000400	Intensive Language Arts
1000410	Intensive Reading
7910100	Reading: 9-12

For the school administrator group, the researcher used publicly available information on school websites to compile a list of principals and assistant principals who were employed during the 2011-2012 school year at the 11 school sites with high school enrollment. A total of 51 administrators were identified as meeting these criteria. Given the small number of administrators in this group, the researcher elected to invite all of them to participate in the study.

Because of the researcher's employment relationship with the target school district, and because one component of the research (matching student learning growth data to participant survey responses) necessitated a confidential (rather than anonymous) research design, it was mutually agreed by the researcher and the school district that additional safeguards should be taken to protect the anonymity of participants to the researcher. Therefore, the Department of Assessment and Accountability staff member assigned an alpha-numeric code to each potential teacher and administrator participant. A single alphabetical character was combined with a two-digit number to create each participant's code. All participants from the same school received the same alphabetical character—but a different number—to enable school-level data analysis if needed. Throughout the study, the researcher only had access to participant names for the purpose of preparing consent letters, and the school district staff member was responsible for placement of the alpha-numeric code on each consent letter. Survey completers identified themselves using only the alpha-numeric code, and thus the researcher never had access to a participant's name linked to his/her survey responses. Likewise, the school district staff member did not have access to disaggregated survey data and,

therefore, could not connect names to survey responses. This framework ensured that all employees who chose to participate did so with complete confidentiality at all times and with anonymity to the researcher.

Instrumentation

Because of the specificity of the research questions and the inclusion of instructional strategies specific to priorities in the target school district, it was necessary for the researcher to construct two original surveys, one for the teacher population and one for the administrator population. The teacher instrument (Dimensions of Effective High School Reading Teachers survey, Appendix A) was developed first, and then it was adapted to create the administrator instrument (Dimensions of Effective High School Reading Teachers—Administrator Perspective, Appendix B).

The instruments were designed by the researcher in collaboration with Researcher B, who conducted an independent study in the target school district using a different population of teachers and the same population of school administrators. The sections and items comprising the survey were constructed to closely align with the research questions (Table 1). Thus, the first section included items comprising the construct of preparation to teach reading to adolescents (first research question), the second section addressed beliefs about student achievement (second research question) and engagement in professional practices (third research question), and the third section addressed the teacher's valuation and use of instructional strategies (fourth research question). The fourth section contained open-ended response items that were designed to solicit qualitative data from participants that could potentially validate or conflict with

quantitative findings. As administered to participants, the teacher survey contained 67 items (63 categorical and Likert items; 4 open-ended response items). The administrator survey contained 62 items (59 categorical and Likert items; 3 open-ended response items). Skip logic was used in the online survey tool for school administrators so that only participants who directly supervised and evaluated reading teachers during the 2011-12 school year were asked to respond to all items; administrators with non-evaluative duties were not asked to respond to items about how frequently specific strategies were observed in teacher classrooms.

To establish the content validity of the instrument, the items in the survey were created by consulting research on effective teaching, especially Hattie (2009), Marzano (2007), and Danielson (2007); justification for inclusion of specific strategies can be found in the review of literature (Chapter 2). To enhance content validity, the researcher and Researcher B also consulted with senior school district instructional administrators and school-based instructional coaches to identify priorities for inclusion in the surveys. Drafts of the surveys were then reviewed by content area experts including university professors, school district administrators, and instructional coaches. Feedback from these groups was used to inform changes to each survey draft. The final draft of each survey was reviewed by a group of educational leadership doctoral students, as well as a group of reading teachers and coaches employed outside of the target school district; these individuals were asked to review the survey for length, readability, and content. After final edits were made, the survey items were entered into Survey Monkey, a web-based tool to facilitate efficient collection of survey data from participants.

Members of the researcher's dissertation committee reviewed the online surveys prior to study commencement.

Data Collection

The study commenced after approval was received from the dissertation committee, the senior instructional administrator in the target school district, and the university's Institutional Research Board (Appendix E, approval letter). The school district imposed several limitations on the research, including that the researcher could not invite teachers and school administrators to participate in the study by electronic mail, inter-school mail system, or participant meeting. Therefore, the researcher printed a consent letter (Appendix C and Appendix D) for each potential participant. Each letter was placed in an envelope labeled with the name of the invited participant. The unsealed envelopes were then grouped by school and given to the Department of Assessment & Accountability staff member, who added each participant's survey code to the upper-right corner of the consent letter. The letter was then placed back in the envelope and sealed by the Department of Assessment & Accountability staff member. All envelopes for participants at a given school were sealed inside one larger envelope, and then all were returned to the researcher. Finally, the researcher distributed each school's envelope to its principal at a regularly scheduled meeting of high school principals, and they were asked to distribute the contents to participants at their school site.

The above process was completed a total of three times: once at the start of the survey (September 13, 2012), once with a follow-up reminder to non-respondents (October 4, 2012), and once more with a final reminder to remaining non-respondents

(November 11, 2012). Each reminder included another copy of the consent letter with directions for accessing the survey website and the participant's survey code. The same process as identified above was followed each time to ensure fidelity to the confidentiality framework created using the alpha-numeric code system, except that for each follow-up the researcher gave the staff member a list of codes already used in the survey site. The staff member then matched those codes to participant envelopes and discarded the matches. This procedure ensured that a follow-up communication went only to individuals who were actual non-responders. Because letters were returned to the researcher in sealed school-level envelopes, at no time did the researcher know whether an individual participant was a responder or non-responder. Table 3 provides a brief description of each stage of the study and reports the cumulative response frequency.

Table 3

Progression of Survey Response Rates

Stage #	Description	Date	Cumulative Teacher Participation 69 possible	Cumulative Administrator Participation 51 possible
1	Initial contact	09/13/12	0	0
2	Reminder	10/04/12	17	29
3	Final notice	11/13/12	31	45
4	Survey closed	11/26/12	41 (59.4%)	47 (92.2%)

As of the close of the survey on November 26, 2012, the response rate for the teacher instrument was 59.4% and the response rate for the administrator instrument was 92.2%. The unusually high response rate for the latter group may be attributable to the potential significance of the research and the strong professional relationship between the researcher and the target school district's high school administrators.

Data Analysis

At the end of the 10 week survey period, the researcher closed access to the instruments in Survey Monkey. A detailed report was generated in the survey site and exported to Microsoft Excel. The researcher then imported the data from categorical and Likert items into SPSS 19.0, a statistical program commonly used in social sciences research.

An additional data table was provided by the Department of Assessment & Accountability staff member selected by the school district to process the researcher's request for teacher effectiveness data. That table contained each participant's alpha-numeric code (but not name), the number of ninth grade students taught during the 2011-2012 school year who took the FCAT in Reading in April, 2011, and the percentage of those students that met or exceeded the individualized projected score established by the Florida Department of Education's value-added statistical model. The researcher used the percentage of students meeting expectations metric to divide the population of teachers into three effectiveness groups: most effective, moderately effective, and least effective. Each teacher's group number was also coded into SPSS. Table 4 provides a summary of the grouping methodology and outcomes.

Table 4

Composition of Teacher Effectiveness Groups

Group #	Label	*n*	% of students meeting learning expectations
1	Most effective	14	Greater than or equal to 63%
2	Moderately effective	15	Greater than 50% but less than 63%
3	Least effective	12	Less than 50%

Note. The percentage of students meeting learning expectations is calculated by the Florida Department of Education as a byproduct of the value-added statistical model. A student whose 2011 FCAT Reading score meets or exceeds the model's prediction of the student's score is deemed to be meeting expectations.

In most cases, data from the survey were reviewed by teacher effectiveness group. For all categorical variables used in the first research question, frequency counts were reported as descriptive statistics followed by an appropriate inferential test for association (chi square or Fisher-Freeman-Halton exact test), at a significance level of .05, between a professional preparation variable and teacher effectiveness group. For the second, third and fourth research questions, data were aggregated and analyzed at the construct level. A total of six constructs were reported and tested using this methodology: teacher beliefs, professional practices, valuation of instructional strategies, valuation of reading strategies, instructional strategies use frequency, and reading strategies use frequency. The last four constructs are subsets of the fourth research question. For the Likert items that comprise each construct, descriptive statistics (mean, standard deviation, and standard error) were reported followed by an appropriate inferential test for association

(standard analysis of variance F test or Welch F test), at a significance level of .05, between an entire construct and teacher effectiveness group.

Statistically significant constructs were then explored further through the use of descriptive and inferential statistics at the item level. Additionally, all statistically significant findings were supplemented with measures of effect size and, when appropriate, post hoc tests to conduct pairwise comparisons.

Quantitative data from the administrator survey were used to answer the last research question by comparing statistically significant findings from teacher data used in the fourth research question to responses provided by school administrators. This information either confirmed or cast doubt on the teacher quantitative findings.

Responses to the open-ended items on the survey were analyzed for the purpose of identifying topics not addressed in the other sections of the instrument and for possible triangulation with quantitative results. Analysis of qualitative data followed guidelines recommended by Patton (2002). Qualitative data were reviewed to identify common response themes, and then the data were reviewed again for the purpose of coding statements. A third review of the data was also conducted to confirm the assigned codes. In addition to identifying themes and reporting frequency data, excerpts from participant responses were included in the results chapter.

Summary

This chapter revisited the five research questions and their respective variables that formed the basis of the study. The process for identification and selection of participants resulted in a sample of 69 ninth-grade intensive reading teachers and a

separate sample of 51 school administrators, consisting of principals and assistant principals. The teacher group participated through completion of a researcher-created survey, and the administrator group completed an adapted version of the teacher instrument. The researcher took multiple steps to establish content validity of the new instruments. The survey was administered over a 10 week period that included initial contact and two follow-up reminders, which resulted in a response rate of 59.4% for teachers and 92.2% for administrators. A complex coding process was utilized to ensure participant confidentiality overall and anonymity to the researcher. Following the close of the survey, the researcher implemented the descriptive and inferential data analysis techniques described above. The next chapter presents the results of this analysis.

CHAPTER FOUR: PRESENTATION & ANALYSIS OF DATA

Introduction

This study sought to identify the characteristics that distinguish the most effective teachers from the least effective teachers of ninth grade students in intensive reading classes in one Florida school district. This effort was framed by five research questions, each addressing a distinctive source of potential teacher effectiveness: professional preparation, beliefs about student achievement, professional practices, and instructional strategies. The investigation was undertaken through the use of a survey given to the population of ninth grade intensive reading teachers. A similar instrument was also given to the principals and assistant principals who supervised and supported these teachers.

This chapter presents the results of both the quantitative and qualitative elements of the data collection instruments. In most cases, data are presented and analyzed by teacher effectiveness group (Table 4). Each research question is considered separately in this chapter. The data are presented at either the construct or item level, or both, as appropriate. Descriptive statistics are reported first, followed by inferential statistics. Qualitative analysis is used to verify or contradict the quantitative results.

Research Question 1: Professional Preparation

The first research question was designed to examine variables related to a teacher's professional preparation to teach literacy to adolescents: To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their professional preparation to teach literacy? Variables of interest included total number of years of classroom teaching and high

school intensive reading experience, post-secondary degrees, status of Florida Reading Endorsement, professional learning experiences, and personal beliefs about sources of one's effectiveness as a classroom teacher. These variables were addressed in Section One (items 3 through 9) of the Dimensions of Effective High School Reading Teachers survey (Appendix A) that was administered to teacher participants in this study. Each variable is addressed separately in the sections that follow.

Years of Experience

The survey included two items related to years of experience: total years of classroom teaching experience and total years of high school intensive reading experience. Consideration of both items was necessary to account for teachers who were involved in another discipline prior to becoming a teacher of adolescent reading courses.

Total Years of Classroom Teaching Experience

As a categorical variable, years of classroom teaching experience is most appropriately reported using frequency data. Table 5 presents counts of ranges of years of classroom teaching experience organized by effectiveness group. At first glance, these data show that no beginning teachers (three years or less experience) and just one of the most senior teachers (21 or more years of experience) were in the most effective group. Additionally, more than one-half of the teachers in the most effective group reported seven to nine years of classroom teaching experience. Thus, it appears that teachers with seven to nine years of experience were more likely to be in the most effective group of ninth grade intensive reading teachers based on the percentage of their students who made learning growth expectations.

Table 5

Frequency Counts for Total Years of Classroom Teaching Experience by Effectiveness Group

Years of Experience	Most Effective	Moderately Effective	Least Effective	Total
1 - 3	0	2	3	5
4 - 6	3	2	0	5
7 - 9	8	1	2	11
10 - 20	2	6	5	13
21 or more	1	4	2	7
Total	14	15	12	41

To more definitively determine whether total classroom teaching experience was associated with teacher effectiveness, the researcher performed a test of inferential statistics. Although a chi-square test of independence is normally used to evaluate whether a relationship exists between two categorical variables, the data presented in Table 5 violated the chi-square test guideline that every cell in the table should have an expected frequency greater than or equal to five (Steinberg, 2011). As a safeguard against error attributed to small expected frequency size in contingency tables, the researcher elected to use the Fisher-Freeman-Halton exact test (F) for contingency tables larger than 2 x 2 (Ruxton & Neuhäuser, 2010). For the data presented in Table 5, F (n = 41) = 15.705, p = .023. Since there is less than a 3% probability that this result occurred by chance alone, the null hypothesis of independence of years of classroom teaching experience and teacher effectiveness is rejected. An appropriate measure of

effect size for a finding of statistical significance in a contingency table larger than 2 x 2 is Cramer's V, and a medium effect size was calculated, V = .438 (Steinberg, 2011).

The likely source of the finding of significance is the lower than expected frequency of teachers in the first years of experience in the most effective group and the higher than expected frequency of teachers with seven to nine years of experience in the most effective group. An additional educationally relevant finding from this data is the underrepresentation of teachers with 10 or more years of experience in the most effective group. Because there is both a statistically significant and educationally relevant association between years of classroom teaching experience and teacher effectiveness, implications for practice and recommendations for further research will be presented in the next chapter.

Total Years of Intensive Reading Experience

As a categorical variable, years of experience teaching intensive reading to high school students is most appropriately reported using frequency data. Table 6 presents counts of ranges of years of high school intensive reading experience organized by effectiveness group. Note that, unlike total years of classroom teaching experience, the highest categorical classification in the survey for intensive reading teaching experience was 10 years or more because intensive reading courses did not become commonplace in Florida public schools until after the FCAT debuted in 1998.

Table 6

Frequency Counts for Total Years of Intensive Reading Teaching Experience by Effectiveness Group

Years of Experience	Most Effective	Moderately Effective	Least Effective	Total
1 - 3	2	5	4	11
4 - 6	7	7	6	20
7 - 9	4	1	1	6
10 or more	1	2	1	4
Total	14	15	12	41

These data show that 90% of the participating teachers taught high school intensive reading for less than 10 years, with nearly one-half of the participants in the four to six year category. Although one-half of the most effective teachers had four to six years of experience in high school reading, one-half of the least effective teachers also have four to six years of experience in high school reading. It is also worth noting that four of the six teachers with seven to nine years of experience are in the most effective group, which is a slightly higher proportion than an even distribution would produce.

To more definitively determine whether total years of high school intensive reading teaching experience was associated with teacher effectiveness, the researcher performed a test of inferential statistics. Although a chi-square test of independence is normally used to evaluate whether a relationship exists between two categorical variables, the data presented in Table 6 violated the chi-square test guideline that every cell in the table should have an expected frequency greater than or equal to five

(Steinberg, 2011). As a safeguard against error attributed to small expected frequency size in contingency tables, the researcher elected to use the Fisher-Freeman-Halton exact test (F) for contingency tables larger than 2 x 2 (Ruxton & Neuhäuser, 2010). Based on this test, there is not a statistically significant association between years of high school intensive reading experience and teacher effectiveness, F (n = 41) = 4.224, p = .711. Thus, there is insufficient evidence to reject the null hypothesis of independence between years of high school intensive reading experience and teacher effectiveness. Overall, these two analyses indicate that years of classroom teacher experience may impact teacher effectiveness but not years of high school intensive reading experience. This distinction suggests that general classroom skills are more critical than discipline-specific knowledge and strategies, but further study would be necessary to assess this claim.

Degrees

The teacher instrument included eight items related to postsecondary education: three regarding the undergraduate degree and five regarding the highest earned graduate degree. If the participant indicated no degree earned beyond the bachelors level, the online survey platform omitted the final four questions.

Undergraduate Degree

Participants were asked to identify the major area of study for the undergraduate degree. The researcher coded this open response item to create a dichotomous variable based on whether the reported major area of study was related to an education field. Additional dichotomous response items asked whether the teacher's major area of study included coursework in teaching reading and coursework in teaching reading to

adolescents. Table 7 presents the frequency data obtained from these categorical variables by effectiveness group.

Table 7

Frequency Counts for Undergraduate Degree by Effectiveness Group

Undergraduate Program	Most Effective	Moderately Effective	Least Effective	Total
Major in education				
Yes	4	9	5	18
No	8	3	7	18
Courses in reading				
Yes	6	7	4	17
No	8	8	8	24
Courses in adolescent reading				
Yes	4	5	5	14
No	10	10	7	27

Note. The major in education item was open response; five participants left the item blank and were excluded from the analysis, but all five responded to subsequent items on coursework.

The table shows that one-half of participants earned an undergraduate degree outside of education and more than one-half had no coursework in teaching reading or teaching reading to adolescents. Interestingly, this pattern of responses indicates that at least some education majors were not exposed to coursework in reading instruction. A case-by-case review of the data show that three of 18 education majors reported no coursework in teaching reading; these three participants were evenly distributed among the three effectiveness groups. Additionally, eight of 18 education majors reported no coursework in teaching reading to adolescents; three of these teachers were in the most effective group, four were in the moderately effective group, and just one was in the least

effective group. Very few non-education majors reported undergraduate coursework in teaching reading or teaching reading to adolescents. However, more participants with a major outside of education were in the most effective group than participants with a major in education, and more participants with no coursework in reading were in the most effective group than participants with undergraduate coursework in reading.

To more definitively determine whether undergraduate program was associated with teacher effectiveness, the researcher performed three tests of inferential statistics on the three sections of data from Table 7. Although a chi-square test of independence is normally used to evaluate whether a relationship exists between two categorical variables, the data presented in Table 7 violated the chi-square test guideline that every cell in the table should have an expected frequency greater than or equal to five (Steinberg, 2011). As a safeguard against error attributed to small expected frequency size in contingency tables, the researcher elected to use the Fisher-Freeman-Halton exact test (*F*) for contingency tables larger than 2 x 2 (Ruxton & Neuhäuser, 2010). Results of three *F* procedures are presented in Table 8, with no findings of statistical significance for association between undergraduate program and teacher effectiveness. Thus, the null hypothesis of independence of the undergraduate program and teacher effectiveness variables cannot be rejected.

Table 8

Fisher-Freeman-Halton Exact Tests for Association of Undergraduate Degree Program & Teacher Effectiveness

Undergraduate Program	*F*	*n*	*p*
Degree major in or out of education	4.538	36	.175
Coursework in reading	0.564	41	.854
Coursework in reading to adolescents	0.580	41	.845

Graduate Degree

Twenty-seven participants (65.9%) reported earning a graduate degree, all at the masters or specialist level; no participant reported earning a doctorate degree. Within the group of 27 graduate degree completers, 24 participants (88.9%) provided a major area of study; notably, all of these fields were related to education. Nine participants with graduate degrees listed their major field of study in reading or reading instruction; only two of these nine were in the most effective group of teachers and only one of these nine was in the least effective group of teachers. Table 9 reports all counts of categorical data related to graduate program and effectiveness.

Table 9

Frequency Counts for Graduate Degree Program by Effectiveness Group

Graduate Degree Program	Most Effective	Moderately Effective	Least Effective	Total
Graduate degree				
Yes	10	11	6	27
No	4	4	6	14
Graduate degree with major in reading				
Yes	2	6	1	9
No	6	3	5	14
Graduate degree with courses in reading				
Yes	4	9	4	17
No	6	2	2	10
Graduate degree with courses in adolescent reading				
Yes	4	8	3	15
No	6	3	3	12

To more definitively determine whether graduate degree was associated with teacher effectiveness, the researcher performed four tests of inferential statistics on the four sections of data presented in Table 9. Although a chi-square test of independence is normally used to evaluate whether a relationship exists between two categorical variables, the data presented in Table 9 violated the chi-square test guideline that every cell in the table should have an expected frequency greater than or equal to five (Steinberg, 2011). As a safeguard against error attributed to small expected frequency size in contingency tables, the researcher elected to use the Fisher-Freeman-Halton exact test (*F*) for contingency tables larger than 2 x 2 (Ruxton & Neuhäuser, 2010). Results of the four *F* tests are presented in Table 10, with no findings of statistical significance for association between graduate degree and teacher effectiveness. Thus, the null hypothesis

of independence of graduate degree program and teacher effectiveness variables cannot be rejected.

Table 10

Fisher-Freeman-Halton Exact Tests for Association of Graduate Degree Program & Teacher Effectiveness

Graduate Degree Program	*F*	*n*	*p*
Graduate degree	1.848	41	.459
Graduate degree in reading	4.378	23	.123
Coursework in reading	3.811	27	.155
Coursework in reading to adolescents	2.370	27	.337

Reading Endorsement

The survey included one item regarding status of the Florida Reading Endorsement. Thirty participants (73.2%) reported completion of the reading endorsement, while 11 others (26.8%) indicated non-completion. Table 11 presents this data grouped by teacher effectiveness. It is notable that all but one of the teachers in the most effective group earned a Florida Reading Endorsement, while a majority of the teachers who had not earned the endorsement were in the least effective group.

Table 11

Frequency Counts for Reading Endorsement Status by Effectiveness Group

Reading Endorsement Status	Most Effective	Moderately Effective	Least Effective	Total
Yes	13	11	6	30
No	1	4	6	11
Total	14	15	12	41

To more definitively determine whether status of Florida reading endorsement was related to teacher effectiveness, the researcher performed a test of inferential statistics. Although a chi-square test of independence is normally used to evaluate whether a relationship exists between two categorical variables, the data presented in Table 11 violated the chi-square test guideline that every cell in the table should have an expected frequency greater than or equal to five (Steinberg, 2011). As a safeguard against error attributed to small expected frequency size in contingency tables, the researcher elected to use the Fisher-Freeman-Halton exact test (F) for contingency tables larger than 2 x 2 (Ruxton & Neuhäuser, 2010). For the data presented in Table 11, F (n = 41) = 5.836, p = .044. Since there is less than a 5% probability that this outcome occurred by chance alone, the null hypothesis of independence is rejected and, therefore, there is an association between Florida reading endorsement status and teacher effectiveness. The appropriate measure of effect size for a finding of statistical significance in a contingency table larger than 2 x 2 is Cramer's V, and a small effect size was detected, V = .267 (Steinberg, 2011).

Professional Learning

Participants were asked to identify the types of professional learning activities they attended during the 2011-2012 school year. This survey item permitted participants to check all applicable indicators and also provided the option to list other types of activities in an open response text box. Table 12 reports recent participation in professional learning data organized by effectiveness group. Based on these responses, it appears most teachers participated in professional learning at the school level through either a Professional Learning Community or an in-service led by an instructional coach. A majority of teachers in both the most effective and least effective groups engaged in these activities. Although self-study of reading/literacy instruction received fewer affirmative responses for recent participation, the distribution of the data followed a similar pattern.

Table 12

Frequency Counts for Professional Learning by Effectiveness Group

Professional Learning Type	Most Effective	Moderately Effective	Least Effective	Total
PLC instructional strategies				
Yes	14	13	10	37
No	0	2	2	4
PLC reading/literacy				
Yes	12	12	10	34
No	2	3	2	7
District administrator provided reading in-service				
Yes	7	7	6	20
No	7	8	6	21
School administrator provided reading in-service				
Yes	5	5	6	16
No	9	10	6	25
Instructional coach provided reading in-service				
Yes	12	13	8	33
No	2	2	4	8
Source outside of district provided reading in-service				
Yes	7	3	4	14
No	7	12	8	27
Reading/literacy self-study				
Yes	9	10	7	26
No	5	5	5	15

To more definitively determine whether recent professional learning participation was associated with teacher effectiveness, the researcher performed seven tests of inferential statistics on the seven sections of data presented in Table 12. Although a chi-square test of independence is normally used to evaluate whether a relationship exists between two categorical variables, the data presented in Table 12 violated the chi-square

test guideline that every cell in the table should have an expected frequency greater than or equal to five (Steinberg, 2011). As a safeguard against error attributed to small expected frequency size in contingency tables, the researcher elected to use the Fisher-Freeman-Halton exact test (*F*) for contingency tables larger than 2 x 2 (Ruxton & Neuhäuser, 2010). Results of the seven *F* tests are presented in Table 13, with no findings of statistical significance for association between recent professional learning participation and teacher effectiveness. Thus, the null hypothesis of independence of recent professional learning participation and teacher effectiveness variables cannot be rejected.

Table 13

Fisher-Freeman-Halton Exact Tests for Association of Professional Learning & Teacher Effectiveness

Professional Learning Type	*F*	*n*	*p*
PLC on instructional strategies	2.430	41	.433
PLC on reading/literacy curriculum	0.330	41	>.999
In-service on reading by district administrator	0.138	41	>.999
In-service on reading by school administrator	0.919	41	.720
In-service on reading by instructional coach	1.920	41	.424
Reading workshop outside of school district	2.830	41	.225
Self-study of reading/literacy instruction	0.307	41	.922

Sources of Effectiveness

Each participant was asked to identify the specific professional preparation factors that contributed to his or her effectiveness as a high school reading teacher. Unlike prior items that requested information about earned degrees, certifications, and professional learning experiences, this survey item was designed to identify participants' perceptions about which of these sources of professional preparation actually make a difference in classroom instructional effectiveness. This survey item permitted participants to select more than one option and also provided the opportunity to list other types of activities in an open response text box. Table 14 reports perceived source of effectiveness data organized by effectiveness group.

Table 14

Frequency Counts for Perceived Source of Effectiveness by Effectiveness Group

Perceived source of effectiveness	Most Effective	Moderately Effective	Least Effective	Total
Self-study				
Yes	10	9	5	24
No	4	6	7	17
Formal education				
Yes	7	9	6	22
No	7	6	6	19
District professional learning				
Yes	12	11	9	32
No	2	4	3	9
School professional learning				
Yes	8	7	8	23
No	6	8	4	18
Collaboration with others				
Yes	14	10	11	35
No	0	5	1	6

Both the most effective and least effective teachers overwhelmingly cited collaboration with others and professional learning at the school district level as a reason for their effectiveness in the classroom. Other reasons for effectiveness had lower rates of identification by participants across the effectiveness categories.

To more definitively determine whether perception of sources of effectiveness was related to teacher effectiveness, the researcher performed five tests of inferential statistics on the five sets of data presented in Table 14. Although a chi-square test of independence is normally used to evaluate whether a relationship exists between two categorical variables, the data presented in Table 14 violated the chi-square test guideline that every cell in the table should have an expected frequency greater than or equal to five (Steinberg, 2011). As a safeguard against error attributed to small expected frequency size in contingency tables, the researcher elected to use the Fisher-Freeman-Halton exact test (*F*) for contingency tables larger than 2 x 2 (Ruxton & Neuhäuser, 2010). Results of four of the five *F* tests are presented in Table 15, with no findings of statistical significance for association between the perceived source of effectiveness and teacher effectiveness.

Table 15

Fisher-Freeman-Halton Exact Tests for Association of Professional Learning & Effectiveness

Perceived Source of Effectiveness	*F*	*n*	*p*
Self-study	2.323	41	.301
Formal education: graduate, undergraduate	0.460	41	.856
School district level professional learning	0.836	41	.717
School level professional learning	1.111	41	.625

The fifth test of inferential statistics for source of effectiveness was collaboration with others. For the collaboration with others data presented in Table 14, $F\ (n = 41) = 6.019$, $p = .027$. Since there is less than a 3% probability that this outcome occurred by chance alone, the null hypothesis of independence is rejected and, therefore, there is an association between teachers who identify collaboration with others as a perceived source of effectiveness and actual teacher effectiveness. The appropriate measure of effect size for a finding of statistical significance in a contingency table larger than 2 x 2 is Cramer's V, and a small effect size was calculated, V = .271 (Steinberg, 2011). Given the distribution of the data, it appears that teachers who identified collaboration with others as a source of effectiveness were more likely to fall into either the most effective group or the least effective group and less likely to fall into the moderately effective group. In fact, every member of the most effective group identified collaboration with others as a source of effectiveness. This is an intriguing

outcome that warrants further discussion in the next chapter about the possible sources of this association.

Summary of Results for Research Question 1

An examination of the relationship between teachers' professional preparation to teach reading and teacher effectiveness was undertaken by examining five separate variables: years of teaching experience (2 tests), postsecondary degree programs (7 tests), Florida reading endorsement (1 test), recent participation in professional learning (7 tests), and perceived sources of professional preparation contributing to effectiveness (5 tests). Three of these tests resulted in a statistically significant finding of association between a specific variable and teacher effectiveness. Total years of classroom teaching experience, completion of the Florida reading endorsement, and collaboration with others as a perceived source of effectiveness were found to be related to teacher effectiveness. Each of these findings will be discussed in the next chapter.

Research Question 2: Beliefs About Student Achievement

The second research question was designed to examine whether specific beliefs about student achievement were related to teacher effectiveness: To what extent do the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their beliefs about student achievement? This research question primarily examines the impact of teacher self-efficacy on teacher effectiveness. Specifically, the researcher was interested in determining whether teachers with a strong belief in their ability to improve students' reading abilities are more successful than those

teachers who believe that their ability to impact reading performance is limited by level of student motivation and factors external to the classroom.

This research question was addressed in items 10 through 14 of the Dimensions of Effective High School Reading Teachers survey (Appendix A) administered to study participants. Each of these five Likert items required participants to respond to a value-laden statement related to teacher beliefs about student achievement through selection of one of four choices (Strongly Agree, Agree, Disagree, or Strongly Disagree). A summary of responses to these items is provided in Appendix F, Table 47. Each participant's responses were converted to numbers and averaged together to create an average score for the construct (teacher beliefs). Mean scores closer to 4.00 can be interpreted as strongly supporting the notion that teachers have the ability to positively impact student achievement in the classroom, while scores closer to 1.00 can be interpreted as strongly opposing this claim. Table 16 presents descriptive statistics for the teacher beliefs construct by teacher effectiveness group.

Table 16

Descriptive Statistics for Teacher Beliefs Construct

Group	*n*	*M*	*SD*	*SE*
Most effective	14	3.214	0.380	0.102
Moderately effective	15	3.160	0.285	0.074
Least effective	12	3.100	0.289	0.083

Although the highest mean score for teacher beliefs about student achievement is found in the most effective teacher group, the difference in the means among the three groups is very small. Standard deviations and standard errors of the mean likewise contain small differences among the three groups.

A test of inferential statistics was necessary to more definitively determine whether teacher effectiveness is a function of teacher beliefs about student achievement. Because the test for homogeneity of variance was not statistically significant, *Levene F* (2, 38) = 0.688, $p = .509$, the researcher performed a one-way ANOVA with an alpha level of .05. The differences in the means were not statistically significant, F (2, 38) = 0.408, $p = .668$. Table 17 summarizes the test results. Based on this outcome, the null hypothesis of no difference in effectiveness group based on teacher beliefs about student achievement cannot be rejected.

Table 17

ANOVA Results for Teacher Beliefs Construct

	SS	*df*	*MS*	*F*	*p*
Between Groups	0.084	2	0.042	0.408	.668
Within Groups	3.933	38	0.104		
Total	4.017	40			

Research Question 3: Professional Practices

The third research question was designed to examine whether specific professional practices related to teacher activities outside of the classroom are associated with teacher effectiveness: To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their professional practices such as planning, reflection, and collaboration with colleagues? Each of these three elements represents a significant commitment of time and resources by both teachers and support systems at the school and school district levels; therefore, it is important to consider these variables with regards to their impact on teacher effectiveness.

This research question was addressed in items 15 through 18 of the Dimensions of Effective High School Reading Teachers survey (Appendix A) administered to study participants. Each of these four Likert items required participants to respond to a value-laden statement related to professional practices through selection of one of four choices (Strongly Agree, Agree, Disagree, or Strongly Disagree). A summary of responses to these items is provided in Appendix F, Table 48. Each participant's responses were converted to numbers and averaged together to create an average score for the construct (professional practices). Mean scores closer to 4.00 can be interpreted as strongly supporting the claim that professional practices are important, while scores closer to 1.00 can be interpreted as strongly opposing this claim. Table 18 provides descriptive statistics for the professional practices construct. Although the highest mean score for

professional practices is found in the most effective teacher group, the difference in the means among the three groups is very small. Standard deviations and standard errors of the mean likewise contain small differences among the three groups, with more variation in mean responses in the least effective group than the other two groups.

Table 18

Descriptive Statistics for Professional Practices Construct

Group	*n*	*M*	*SD*	*SE*
Most effective	14	3.679	0.182	0.049
Moderately effective	15	3.583	0.349	0.090
Least effective	12	3.541	0.382	0.110

A test of inferential statistics was necessary to more definitively determine whether teacher effectiveness is a function of professional practices. However, the test for homogeneity of variance with an alpha level of .05 was statistically significant, *Levene F* (2, 38) = 6.473, $p = .004$. Therefore, the researcher performed a Welch F Test (F_W), which is more robust to violation of the assumption of homogeneity of variance than the traditional ANOVA test (Lomax, 2007). With an alpha of .05, execution of the Welch F test showed that the differences in the means were not statistically significant, F_W (2, 21.655) = 0.883, $p = .428$. Based on this outcome, the null hypothesis of no difference in effectiveness group based on professional practices cannot be rejected. Although this finding suggests that chance alone may be responsible for the difference in mean scores, the fact that the most effective group of teachers had the highest average

score in the construct warrants further study to determine if there are specific practices that can influence a teacher's effectiveness as judged by the percentage of students who met learning growth expectations on FCAT Reading.

Research Question 4: Instructional Strategies

The fourth research question was designed to examine the impact of teachers' use of instructional strategies on student learning: To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their valuation and use of specific instructional strategies? This research question directly examines the impact of instruction on student achievement.

Given the breadth of the scholarly literature on effective strategies and the critical connection between instruction and learning, complete coverage of the dimensions of this research question required a series of survey items divided into four constructs as described in Table 19. Each construct will be treated separately in the sections that follow.

Table 19

Instructional Strategies Constructs & Survey Items

Construct #	Construct Label	# of items	Item Range
4A	Classroom Strategies Valued	12	20 - 31
4B	Reading Strategies Valued	10	32 - 41
4C	Classroom Strategies Used	12	42 - 53
4D	Reading Strategies Used	10	54 - 63

Construct 4A: Classroom Strategies Valued

The items on this section of the participant survey asked teachers how much value they attached to specific strategies that researchers have identified as contributing to student achievement. The purpose of these items was to determine if the most effective teachers attributed more value to these strategies than the least effective teachers. The researcher aggregated 12 items from this section of the survey to create the construct. Each of these 12 Likert items required participants to indicate whether they regarded a specific classroom strategy as important to the student learning process by selecting one of four choices (Strongly Agree, Agree, Disagree, or Strongly Disagree). A summary of responses to these items is provided in Appendix F, Table 49. Each participant's responses were converted to numbers and averaged together to create an average score for the construct (classroom strategies valued). Mean scores closer to 4.00 can be interpreted as strongly supporting the claim that research-based classroom strategies positively impact student learning, while scores closer to 1.00 can be interpreted as strongly opposing this claim. Summary data for classroom strategies valued are presented in Table 20. The highest mean score for general classroom strategies is found in the most effective teacher group, with the other two groups about 0.3 points behind. The construct average is slightly higher for the least effective group than the moderately effective group, but the difference is very small. Standard deviations and standard errors of the mean likewise contain small differences among the three groups, with more variation in mean responses in the least effective group than the other two groups.

Table 20

Descriptive Statistics for Classroom Strategies Valued Construct

Group	*n*	*M*	*SD*	*SE*
Most effective	14	3.658	0.202	0.054
Moderately effective	15	3.317	0.346	0.089
Least effective	12	3.364	0.391	0.112

A test of inferential statistics was necessary to more definitively determine whether teacher effectiveness is a function of valuation of general classroom strategies. However, the test for homogeneity of variance was statistically significant, *Levene F* (2, 38) = 3.867, $p = .030$. Therefore, the researcher performed a Welch F Test (F_W), which is more robust to violation of the assumption of homogeneity of variance than the traditional ANOVA test (Lomax, 2007). With an alpha level of .05, execution of the Welch F test showed that the differences in the means were statistically significant, F_W (2, 22.255) = 6.514, $p = .006$. Since there is less than a 1% probability that this outcome occurred by chance alone, the null hypothesis of no difference is rejected and, therefore, there is evidence that teacher effectiveness group is a function of valuation of general classroom strategies.

An appropriate measure of the strength of association for a finding of statistical significance in an analysis of variance using a Welch F test with a small sample size is omega squared (ω^2). This statistic returns a more conservative effect size than other measures that are less stable with sample sizes (Privitera, 2012). For the classroom strategies valued construct, $\omega^2 = .211$. This means that 21.1% of the variance in teacher

effectiveness can be explained by valuation of instructional strategies. Because omega squared is a conservative measure, these results may underestimate the actual variance in teacher effectiveness that can be explained by valuation of instructional strategies.

An appropriate post-hoc test for a statistically significant finding on an analysis of variance test of groups with unequal variances is Games-Howell. Table 21 presents the results of the application of Games-Howell to the instructional strategies valuation data for the three effectiveness groups. The pairwise comparisons clearly show that the most effective group had a higher mean score on this construct than the moderately effective group, and the most effective group also had a higher mean score than the least effective group. Inferentially, the difference between the most effective group and the moderately effective group was statistically significant ($p = .009$). The effect size for the statistically significant difference between the means of the most effective and moderately effective groups is large, *Cohen's d* = 1.20 (Steinberg, 2011). There is also evidence of a difference between the most effective and least effective groups, but the difference is not statistically significant at an alpha level of .05 ($p = .077$).

Table 21

Games-Howell Post Hoc Analysis of Classroom Strategies Valued Construct

Group 1	Group 2	MD	*SE*	*p*
Most effective	Moderately effective	0.341	0.104	.009
Most effective	Least effective	0.294	0.125	.077
Moderately effective	Least effective	-0.046	0.144	.944

Note. MD = mean difference.

Because the application of inferential statistics to the overall construct yielded a statistically significant result, it is educationally meaningful to determine which specific strategies were more highly valued by the most effective group of teachers. Therefore, additional analysis of variance testing was conducted at the item level for classroom strategies valued. Although concerns have been raised about the impact on Type I error rates caused by the use of multiple inferential tests, the potential benefits to the target school district outweigh the statistical risks. A total of 12 additional analysis of variance tests—either ANOVA or Welch F— were attempted. The results are reviewed below.

Classroom Strategies Valuation With Statistical Significance

Two of the 12 items resulted in statistically significant results using analysis of variance testing: teaching students to self-monitor their progress and cooperative learning activities. These strategies are discussed separately in the sections that follow.

Self-monitoring

The self-monitoring item related to the importance that ninth grade intensive reading teachers place on teaching students to self-monitor their own progress. Summary statistics for this strategy are presented in Table 22. The most effective group of teachers valued this strategy with a mean score of 3.710, while moderately effective teachers assigned a value of 3.400 and the least effective group of teachers assigned a value of 3.250. The standard deviation and standard error of the mean was similar for all three groups.

Table 22

Descriptive Statistics for Self-Monitoring Strategy

Group	*n*	*M*	*SD*	*SE*
Most effective	14	3.710	0.469	0.125
Moderately effective	15	3.400	0.507	0.131
Least effective	12	3.250	0.452	0.131

A test of inferential statistics was necessary to more definitively determine whether teacher effectiveness is a function of valuation of the teaching students to self-monitor strategy. Because the test for homogeneity of variance was not significant, *Levene F* (2, 38) = 1.224, $p = .305$, the researcher performed a one-way ANOVA with an alpha level of .05. The differences in the means were statistically significant, F (2, 38) = 3.247, $p = .050$. Table 23 summarizes the test results. Note that the p value is equal to the alpha level, making the test result barely statistically significant. A medium effect size was calculated for this finding, $\eta = .382$ (Steinberg, 2011).

Table 23

ANOVA Results for Self-Monitoring Strategy

	SS	*df*	*MS*	*F*	*p*
Between Groups	1.488	2	0.744	3.247	.050
Within Groups	8.707	38	0.229		
Total	10.195	40			

An appropriate post-hoc analysis procedure for a standard ANOVA test is Tukey HSD. This procedure was calculated with an alpha level of .05 and test results are reported in Table 24. The mean difference between the most effective group of teachers and the least effective group of teachers was statistically significant ($p = .047$). This result suggests real differences between the most and least effective teachers about the value of teaching students to self-monitor their progress, but again the p value was close to the alpha level. The effect size of this finding is large, *Cohen's d* = 1.00 (Steinberg, 2011).

Table 24

Tukey HSD Post Hoc Analysis for Self-Monitoring Classroom Strategy

Group 1	Group 2	MD	*SE*	*p*
Most effective	Moderately effective	0.314	0.178	.194
Most effective	Least effective	0.464	0.188	.047
Moderately effective	Least effective	-0.150	0.185	.700

Note. MD = mean difference.

Cooperative Learning

The cooperative learning item related to the importance that ninth grade intensive reading teachers placed on using cooperative learning activities during instruction. Summary statistics for this strategy are presented in Table 25. The most effective group of teachers valued this strategy with a mean score of 3.790, while moderately effective teachers valued this strategy at 3.200 and the least effective group of teachers valued the

strategy at 3.170. The standard deviation and standard error of the mean was higher for the least effective group, signaling more variance in the responses of those participants.

Table 25

Descriptive Statistics for Cooperative Learning Strategy

Group	*n*	*M*	*SD*	*SE*
Most effective	14	3.790	0.426	0.114
Moderately effective	15	3.200	0.676	0.175
Least effective	12	3.170	0.835	0.241

A test of inferential statistics was necessary to more definitively determine whether teacher effectiveness is a function of valuation of the cooperative learning strategy. Because the test for homogeneity of variance was not significant, *Levene F* (2, 38) = 1.097, $p = .344$, the researcher performed a one-way ANOVA with an alpha level of .05. The differences in the means were statistically significant, F (2, 38) = 3.855, $p = .030$. Table 26 summarizes the test results. A large effect size was calculated for this finding, $\eta = .411$ (Steinberg, 2011).

Table 26

ANOVA Results for Cooperative Learning Strategy

	SS	*df*	*MS*	*F*	*p*
Between Groups	3.332	2	1.666	3.855	.030
Within Groups	16.424	38	0.432		
Total	19.756	40			

An appropriate post-hoc analysis procedure for a standard ANOVA test is Tukey HSD. This procedure was calculated with an alpha level of .05 and test results are reported in Table 27. Interestingly, none of the pairwise comparisons were statistically significant, but the *p* values for both the most effective-moderately effective and most effective-least effective groups approached statistical significance ($p = .055$ for both groups). Thus, the omnibus *F* test detected statistical significance for differences in means among the groups, but the more conservative post-hoc test failed to detect statistically significant differences between any two groups. This result may be attributable to the small sample and group sizes used in this research. Nevertheless, the much higher mean score for valuation of cooperative learning by the most effective teacher group is educationally relevant and has implications for education stakeholders.

Table 27

Tukey HSD Post Hoc Analysis for Cooperative Learning Classroom Strategy

Group 1	Group 2	MD	*SE*	*p*
Most effective	Moderately effective	0.586	0.244	.055
Most effective	Least effective	0.619	0.259	.055
Moderately effective	Least effective	0.033	0.255	.991

Note. MD = mean difference.

Classroom Strategies Valuation With No Statistical Conclusion

Three of the 12 classroom strategies valuation items could not be tested using inferential statistics. For these items, Levene's test for homogeneity of variance was statistically significant ($p < .001$ for all three strategies). Although a Welch F test would be an appropriate alternative, it could not be executed for any of the three strategies because variance in the most effective group was 0.00—all of the most effective teacher participants responded Strongly Agree when asked if the strategy had high value. Thus, no statistical conclusions could be reached regarding these items. Table 28 reports the means and standard deviations on these items by effectiveness group.

Table 28

Descriptive Statistics for Three Instructional Strategies

Strategy	Most Effective	Moderately Effective	Least Effective
Efficient use of learning time	4.00 (.000)	3.53 (.516)	3.67 (.492)
Visual aids & graphic organizers	4.00 (.000)	3.47 (.640)	3.67 (.492)
Checking for understanding	4.00 (.000)	3.71 (.469)	3.75 (.452)

Note. Mean and (standard deviation) reported for each cell.

Although a statistical conclusion cannot be drawn from these data, the fact that every member of the most effective group of teachers strongly agreed that these strategies have a positive impact on reading improvement is educationally meaningful. These strategies are somewhat less highly valued by members of the moderate and least effective groups.

Notably, the means on these three items are higher for the least effective group of teachers than the moderate effective group of teachers. The researcher conducted an additional independent samples *t*-test at an alpha level of .05 for each item to determine whether the differences in means between the lowest two groups were statistically significant. In all three cases, there was no statistically significant difference. For efficient use of learning time, $t\ (25) = -0.680$, $p = .502$. For visual aids and graphic organizers, $t\ (25) = -0.891$, $p = .381$. For checking for understanding, $t\ (25) = -0.197$, $p = .846$. Therefore, the slightly higher mean values by the least effective group of teachers is likely due to sampling error or small sample size rather than a

phenomenon whereby lesser effective teachers value research-based classroom strategies more so than moderately effective teachers.

Classroom Strategies Valued Without Statistical Significance

Seven of the 12 items resulted in non-significant results using analysis of variance testing at an alpha level of .05. A standard ANOVA test was used unless Levene's test for homogeneity of variance was significant, in which case the researcher used a Welch F test. A summary of the test results is provided in Table 29. Note that only one strategy—chunking content—had a *p* value that approached statistical significance.

Table 29

Summary of Non-Significant ANOVA for Instructional Strategies Valued

Strategy	Levene's p	ANOVA *p*	Welch *p*
Learning goals	.530	.709	
Student goal-setting	.003		.157
Classroom routines	.096	.179	
Chunking content	<.001		.057
Similarities & differences	.647	.404	
Guided practice	.004		.268
Daily homework	.876	.190	

Construct 4B: Reading Strategies Valued

The items on this section of the participant survey asked teachers how much value they attached to specific reading strategies that researchers have identified as contributing to student learning growth. The purpose of these items was to determine if the most effective teachers attributed more value to these strategies than the least effective teachers. The researcher aggregated 10 items from this section of the survey to create the construct. Each of these 10 Likert items required participants to indicate whether they regarded a specific reading strategy as important to the student learning process by selecting one of four choices (Strongly Agree, Agree, Disagree, or Strongly Disagree). A summary of responses to these items is provided in Appendix F, Table 50. Each participant's responses were converted to numbers and averaged together to create an average score for the construct (reading strategies valued). Mean scores closer to 4.00 can be interpreted as strongly supporting the claim that research-based reading strategies positively impact student learning, while scores closer to 1.00 can be interpreted as strongly opposing this claim. Summary data for reading strategies valued are presented in Table 30. The highest mean score on this construct was in the most effective group, with the moderately effective and least effective groups slightly lower and nearly identical. The standard deviation and standard error of the mean were similar for all three groups, with slightly more variance in the least effective group of teachers. One interesting trend in this data is that each group's mean score for reading strategies valued was lower than its mean score for classroom strategies valued.

Table 30

Descriptive Statistics for Reading Strategies Valued Construct

Group	*n*	*M*	*SD*	*SE*
Most effective	14	3.246	0.254	0.068
Moderately effective	15	3.001	0.270	0.070
Least effective	12	2.994	0.365	0.105

A test of inferential statistics was necessary to more definitively determine whether teacher effectiveness is a function of their valuation of reading strategies. Because the test for homogeneity of variance was not statistically significant, *Levene F* (2, 38) = 0.598, $p = .555$, the researcher performed a one-way ANOVA with an alpha level of .05. The differences in the means were not statistically significant, F (2, 38) = 3.219, $p = .051$. Table 31 summarizes the test results. Based on this outcome, the null hypothesis of no difference in effectiveness group based on reading strategies valued cannot be rejected. However, it is noteworthy that the p value exceeded the alpha level by only .001. Thus, while not statistically significant, the differences between the most effective group of teachers and the other groups may be educationally relevant.

Table 31

ANOVA Results for Reading Strategies Valuation Construct

	SS	*df*	*MS*	*F*	*p*
Between Groups	0.565	2	0.282	3.219	.051
Within Groups	3.333	38	0.088		
Total	3.898	40			

Construct 4C: Classroom Strategies Use Frequency

The items on this section of the participant survey asked teachers how often they actually use specific classroom strategies that researchers have identified as contributing to student achievement. The purpose of these items was to determine if the most effective teachers reported using these strategies more often than the least effective teachers. The researcher aggregated 12 items from this section of the survey to create the construct. Each of these 12 Likert items required participants to indicate how often they used a specific classroom strategy by selecting one of four options (Daily, At least weekly, At least monthly, or Never). A summary of responses to these items is provided in Appendix F, Table 51. Each participant's responses were converted to numbers and averaged together to create an average score for the construct (classroom strategies valued). Mean scores closer to 4.00 can be interpreted as using these research-based strategies on a daily basis, while scores closer to 1.00 can be interpreted as rarely or never using these strategies. Summary data for classroom strategies use frequency are presented in Table 32. The highest mean score for general classroom strategies is found in the most effective teacher group, with the other two groups slightly lower (reflecting

less frequent use of the strategies). Standard deviations and standard errors of the mean are nearly twice as large for the moderately effective and least effective groups, indicating more variance in the distribution of responses provided by teachers in those groups.

Table 32

Descriptive Statistics for Instructional Strategies Use Frequency Construct

Group	*n*	*M*	*SD*	*SE*
Most effective	14	3.45	.158	.042
Moderately effective	15	3.39	.354	.091
Least effective	12	3.27	.335	.097

A test of inferential statistics was necessary to more definitively determine whether teacher effectiveness is a function of frequency of use of classroom strategies. Because the test for homogeneity of variance was not statistically significant, *Levene F* (2, 38) = 2.996, $p = .062$, the researcher performed a one-way ANOVA with an alpha level of .05. The differences in the means were not statistically significant, F (2, 38) = 1.139, $p = .331$. Table 33 summarizes the test results. Based on this outcome, the null hypothesis of no difference in effectiveness group based on classroom strategies use frequency cannot be rejected.

Table 33

ANOVA Results for Instructional Strategies Use Frequency Construct

	SS	*df*	*MS*	*F*	*p*
Between Groups	0.199	2	0.099	1.139	.331
Within Groups	3.319	38	0.087		
Total	3.518	40			

Construct 4D: Reading Strategies Use Frequency

The items on this section of the participant survey asked teachers how often they actually use reading strategies that researchers have identified as contributing to student achievement. The purpose of these items was to determine if the most effective teachers reported using these strategies more often than the least effective teachers. The researcher aggregated 10 items from this section of the survey to create the construct. Each of these 10 Likert items required participants to indicate how often they used a specific reading strategy by selecting one of four options (Daily, At least weekly, At least monthly, or Never). A summary of responses to these items is provided in Appendix F, Table 52. Each participant's responses were converted to numbers and averaged together to create an average score for the construct (reading strategies used). Mean scores closer to 4.00 can be interpreted as using these research-based reading strategies on a daily basis, while scores closer to 1.00 can be interpreted as rarely or never using these strategies. Summary data for reading strategies use frequency are presented in Table 34. The highest mean score for reading strategies use frequency is found in the most effective teacher group, with the other two groups somewhat lower (reflecting use of the strategies

less frequently). Standard deviations and standard errors of the mean are only slightly different among the three groups.

Table 34

Descriptive Statistics for Reading Strategies Use Frequency Construct

Group	*n*	*M*	*SD*	*SE*
Most effective	14	2.94	0.309	.083
Moderately effective	15	2.61	0.437	.113
Least effective	12	2.52	0.461	.133

A test of inferential statistics was necessary to more definitively determine whether teacher effectiveness is a function of frequency of use of reading strategies. Because the test for homogeneity of variance was not statistically significant, *Levene F* (2, 38) = 1.325, $p = .278$, the researcher performed a one-way ANOVA with alpha set at .05. Table 35 summarizes the test results. The differences in the means were statistically significant, F (2, 38) = 3.948, $p = .028$. Because there is less than a 3% probability that this outcome was due to chance alone, the null hypothesis of no difference is rejected and, therefore, there is evidence that teacher effectiveness is a function of reading strategies use frequency. A large effect size was calculated for this finding, $\eta = .415$ (Steinberg, 2011).

Table 35

ANOVA Results for Reading Strategies Use Frequency Construct

	SS	*df*	*MS*	*F*	*p*
Between Groups	1.300	2	0.650	3.948	.028
Within Groups	6.255	38	0.165		
Total	7.555	40			

An appropriate post-hoc analysis procedure for a standard ANOVA test is Tukey HSD. Results from this test are reported in Table 36. The mean difference between the most effective group of teachers and the least effective group of teachers was statistically significant ($p = .033$). This result suggests real differences between the most and least effective teachers with respect to how often research-based reading strategies are used in the intensive reading classroom. There is a medium effect size for the statistically significant difference in the means of the most effective and least effective groups, *Cohen's d* = 0.62 (Steinberg, 2011). Although there is not a statistically significant difference between the means of the most effective and moderately effective groups, the *p* value is within 4% of the alpha level and, therefore, an investigation with a larger sample size could produce a different result.

Table 36

Post Hoc Analysis of Reading Strategies Use Frequency Construct

Group 1	Group 2	MD	*SE*	*p*
Most effective	Moderately effective	0.327	0.151	.089
Most effective	Least effective	0.418	0.160	.033
Moderately effective	Least effective	0.091	0.157	.833

Note. MD = mean difference.

Because the application of inferential statistics to the overall construct yielded a statistically significant result, it is educationally meaningful to determine which specific strategies were more highly valued by the most effective group of teachers. Therefore, additional analysis of variance testing was conducted at the item level for reading strategies use frequency. Although concerns have been raised about the impact on Type I error rates caused by the use of multiple inferential tests, the potential benefits to the target school district outweigh the statistical risks. A total of 10 additional analysis of variance tests—either ANOVA or Welch F—were attempted. Results are reviewed in separate sections that follow.

Reading Strategies Use Frequency With Statistical Significance

Two of the 10 items resulted in statistically significant results using analysis of variance testing: the use of sustained silent reading (SSR) and paired/partner student readings. Each of these strategies is discussed separately in the sections that follow.

Sustained Silent Reading

This item asked teacher participants about the frequency of use of sustained silent reading in their ninth grade classrooms. Summary statistics for this strategy are presented in Table 37. The most effective group of teachers valued this strategy with a mean score of 3.430 (indicating use at least weekly with some responding daily), while moderately effective teachers assigned a value of 3.130 (indicating at least weekly use) and the least effective group of teachers assigned a value of 2.400 (indicating a tendency toward at least monthly use). Thus, the one-point difference between the most effective and least effective group appears to be large. The standard deviation and standard error of the mean was similar for all three groups, with the least effective group showing the greatest amount of variance in responses to this item.

Table 37

Descriptive Statistics for Frequency of Use of Sustained Silent Reading Strategy

Group	*n*	*M*	*SD*	*SE*
Most effective	14	3.430	0.852	0.228
Moderately effective	15	3.130	0.640	0.165
Least effective	10	2.400	1.075	0.340

A test of inferential statistics was necessary to more definitively determine whether teacher effectiveness is a function of frequency of use of sustained silent reading. Because the test for homogeneity of variance was not statistically significant,

Levene F (2, 38) = 2.858, $p = .070$, the researcher performed a one-way ANOVA with alpha set at .05. Table 38 summarizes the test results. The differences in the means were statistically significant, F (2, 36) = 4.461, $p = .019$. Because there is less than a 2% probability that this outcome was due to chance alone, the null hypothesis of no difference is rejected and, therefore, there is evidence that teacher effectiveness is a function of frequency of use of sustained silent reading. A large effect size was calculated for this finding, $\eta = .446$ (Steinberg, 2011).

Table 38

ANOVA Results for Sustained Silent Reading Use Frequency Strategy

	SS	*df*	*MS*	*F*	*p*
Between Groups	6.336	2	3.168	4.461	.019
Within Groups	25.562	36	0.710		
Total	31.898	38			

An appropriate post-hoc analysis procedure for a standard ANOVA test is Tukey HSD. Results from this test are reported in Table 39. The mean difference between the most effective group of teachers and the least effective group of teachers was statistically significant ($p = .015$). This result suggests real differences between the most and least effective teachers with regards to frequency of use of sustained silent reading. There is a large effect size for the statistically significant difference in the means of the most effective and least effective groups, *Cohen's d* = 1.05 (Steinberg, 2011). Although

not statistically significant, there is also a difference in the means of the moderately effective and least effective group (p = .098).

Table 39

Post Hoc Analysis of Sustained Silent Reading Strategy

Group 1	Group 2	Mean Difference	*SE*	*p*
Most effective	Moderately effective	0.295	0.313	.617
Most effective	Least effective	1.029	0.344	.015
Moderately effective	Least effective	0.733	0.344	.098

Paired/Partner Student Readings

The paired/partner student readings item related to the frequency of use of this strategy by ninth grade intensive reading teachers. Summary statistics for this strategy are presented in Table 40. The most effective group of teachers valued this strategy with a mean score of 2.710 (indicating a tendency toward use at least weekly), while moderately effective teachers assigned a value of 2.800 (indicating a tendency toward use at least weekly) and the least effective group of teachers assigned a value of 2.080 (indicating a tendency toward at least monthly use). The difference between the most and moderately effective groups and the least effective group appears to be large. The standard deviation and standard error of the mean was similar for all three groups, with the least effective group showing the greatest amount of variance in responses to this item.

Table 40

Descriptive Statistics for Paired/Partner Student Readings Strategy

Group	*n*	*M*	*SD*	*SE*
Most effective	14	2.710	0.611	0.163
Moderately effective	15	2.800	0.676	0.175
Least effective	12	2.080	0.996	0.288

A test of inferential statistics was necessary to more definitively determine whether teacher effectiveness is a function of frequency of use of paired/partner student readings. Because the homogeneity of variance test was not statistically significant, *Levene F* (2, 38) = 1.515, $p = .233$, the researcher performed a one-way ANOVA with alpha set at .05. Table 41 summarizes the test results. The differences in the means were statistically significant, F (2, 38) = 3.362, $p = .045$. Because there is less than a 5% probability that this outcome was due to chance alone, the null hypothesis of no difference is rejected and, therefore, there is evidence that teacher effectiveness is a function of frequency of use of paired/partner student readings. A medium effect size was calculated for this finding, $\eta = .388$ (Steinberg, 2011).

Table 41

ANOVA Results for Paired/Partner Student Readings Use Strategy

	SS	*df*	*MS*	*F*	*p*
Between Groups	3.924	2	1.962	3.362	.045
Within Groups	22.174	38	0.584		
Total	26.098	40			

An appropriate post-hoc analysis procedure for a standard ANOVA test is Tukey HSD. Results from this test are reported in Table 42. Interestingly, none of the pairwise comparisons were statistically significant, but the *p* value for the moderately effective-least effective pair missed statistical significance by .002. Thus, the omnibus *F* test detected statistical significance for differences in means among the groups, but the more conservative post-hoc test failed to detect statistically significant differences between any two groups. This result may be related to the small sample and group sizes used in this research. Nevertheless, the higher mean score for use of paired/partner readings by the most effective and moderately effective teacher groups is educationally relevant and has important implications for classroom instruction.

Table 42

Tukey HSD Post Hoc Analysis for Paired/Partner Student Readings Use Frequency

Group 1	Group 2	Mean Difference	*SE*	*p*
Most effective	Moderately effective	-0.086	0.284	.951
Most effective	Least effective	0.631	0.301	.103
Moderately effective	Least effective	0.717	0.296	.052

Note. MD = mean difference.

Reading Strategies Use Frequency Without Statistical Significance

Eight of the 12 items resulted in non-significant results using analysis of variance testing at an alpha level of .05. A standard ANOVA test was used unless Levene's test for homogeneity of variance was significant, in which case the researcher used a Welch F test. A summary of the test results are provided in Table 43. Note that only one strategy—word walls—had a *p* value that approached statistical significance.

Table 43

Summary of Non-significant ANOVA Results for Reading Strategies Use Frequency

Strategy	Levene's p	ANOVA *p*	Welch *p*
One-on-one readings with teacher	.243	.246	
Choral reading	.526	.721	
Round robin reading	.662	.434	
Classroom library	<.001		.169
Word wall	.214	.081	
Hot & cold readings	.800	.322	
Text Coding	.965	.706	
Question-Answer-Relationship	.198	.367	

Summary of Results for Research Question 4

An examination of the relationship between teachers' use of research-based strategies and teacher effectiveness was undertaken by examining four constructs: valuation of instructional strategies, valuation of reading strategies, frequency of use of instructional strategies, and frequency of use of reading strategies. Two of these constructs—valuation of instructional strategies and frequency of use of reading strategies—resulted in a statistically significant finding of association between the construct and teacher effectiveness. Item-level analysis of these constructs revealed a total of four strategies with statistical significance in differences of mean scores among the effectiveness groups: valuation of teaching students to self-monitor progress, valuation of cooperative learning, frequency of use of sustained silent reading, and

frequency of use of paired/partner student readings. A discussion of these findings and other non-significant but educationally meaningful trends will be presented in the next chapter.

Research Question 5: Administrator Agreement

The fifth research question was designed to consider the perspective of school administrators in their role as instructional leaders: To what extent did principals and assistant principals identify the instructional strategies that distinguish the most effective ninth grade intensive reading teachers from the least effective? This research question offers the opportunity to confirm or further scrutinize the findings from the classroom teacher survey while also providing valuable data to the targeted school district about the ability of its administrator corps as a whole to detect the subtle differences among teachers that are associated with higher degrees of effectiveness.

Data for this research question were gathered from the Dimensions of Effective High School Reading Teachers survey—*Administrator Perspective* (Appendix B) given to all high school principals and assistant principals in the target school district. In addition to reporting on general characteristics of the participating administrators, only data from the administrator survey that were related to statistically significant findings from the first four research questions are reported and examined in this section.

Characteristics of School Administrators

Forty-seven of the 51 high school principals and assistant principals in the target school district responded to the administrator survey. Table 44 reports a summary of the educational characteristics of participating administrators. These data suggest that most

high school administrators in the target school district lack coursework in teaching reading at both the undergraduate and graduate levels. Additionally, just two administrators earned the Florida Reading Endorsement and only a few others had completed one or more courses toward the endorsement; 79% of school administrators have no experience related to the endorsement required for all reading teachers. The data also show that a majority of school administrators have 10 or more years of instructional experience and a plurality have 10 or more years of administrative experience. Overall, these data suggest that the target school district has a highly experienced administrative corps that lacks formal preparation in adolescent literacy and research-based literacy instruction.

Table 44

Educational Characteristics of School Administrators

Characteristic	*f*	%
Undergraduate degree in education	20	43
Undergraduate coursework in reading	12	26
Undergraduate coursework in adolescent reading	11	23
Graduate degree in education	41	87
Graduate degree in educational leadership	32	68
Graduate coursework in reading	9	19
Graduate coursework in adolescent reading	8	17
Instructional experience: 10 or more years	32	68
Administrative experience: 10 or more years	20	43
Earned Florida Reading Endorsement	2	4
Finished 1 or more reading endorsement courses	8	17

Note. $n = 47$.

Administrator participants were also asked to identify participation in professional learning activities related to reading instruction during the 2011-2012 school year. Summary data for these activities are reported in Table 45. These data suggest that a majority of school administrators participated in some type of professional learning related to literacy instruction. However, nearly one in five administrators reported no participation in professional learning in reading. Administrators were also much more likely to attend workshops led by school district administrators or instructional coaches than by other principals and assistant principals. Notably, external workshops and self-study were the least likely sources of recent professional learning in reading for administrators, suggesting either little opportunity or little interest in going beyond the expertise of in-house staff.

Table 45

Professional Learning in Reading for School Administrators

Activity	*f*	%
PLC on instructional strategies	39	83
PLC on reading/literacy curriculum	19	40
In-service on reading by district administrator	24	51
In-service on reading by school administrator	15	32
In-service on reading by instructional coach	24	51
Reading workshop outside of school district	8	17
Self-study of reading/literacy instruction	8	17
No participation in any learning related to reading	9	19

Administrator Responses to Significant Findings in Research Question 4

The researcher reviewed administrator responses to each item that was found to have statistically significant differences in mean scores among the three teacher effectiveness groups. The four strategies that met this criterion are addressed separately in the sections that follow.

Teaching Students to Self-Monitor Valuation

Teachers in the most effective group valued the teaching of students to self-monitor progress more highly than the teachers in the least effective group, and the effect size of the statistically significant difference in means was medium (Tables 22, 23, 24). The mean score attributed to the self-monitoring strategy by the most effective teachers was 3.710. The mean score assigned by administrators was 3.680. An independent *t*-test was conducted at an alpha level of .05 to determine whether there was a statistically significant difference between these mean scores, and the result was a finding of no difference, $t\ (59) = 0.233$, $p = .816$. Therefore, both administrators and the most effective teachers attribute a high degree of value to teaching students to self-monitor their progress.

Cooperative Learning Valuation

The use of cooperative learning activities was more highly valued by the most effective teachers than the least effective teachers and the effect size of the statistically significant difference in means was large (Tables 25, 26, 27). The mean value attributed to the cooperative learning strategy by the most effective teachers was 3.790. The mean score assigned by administrators was similar at 3.570. An independent *t*-test was

conducted at an alpha level of .05 to determine whether there was a statistically significant difference between these mean scores. Due to a violation of the assumption of equal variances, *Levene F* = 8.980, *p* = .004, an adjusted *t*-test resulted in a finding of no difference, *t* (27.171) = 1.584, *p* = .125. Therefore, both administrators and the most effective teachers attribute a high degree of value to cooperative learning activities.

Sustained Silent Reading Use Frequency

The use of sustained silent reading as a strategy used in high school intensive reading courses was reported more frequently by the most effective teachers than the least effective teachers and the effect size of the statistically significant difference in means was large (Tables 37, 38, 39). The mean value attributed to the sustained silent reading strategy by the most effective teachers was 3.430, suggesting use by this group at least weekly and sometimes daily. The mean score assigned by 28 administrators who supervised or evaluated reading teachers during the 2011-2012 school year was lower at 2.930, suggesting that at least some administrators observed the use of sustained silent reading less often than weekly. An independent *t*-test was conducted at an alpha level of .05 to determine whether there was a statistically significant difference between these mean scores. Due to a violation of the assumption of equal variances, *Levene F* = 5.899, *p* = .020, an adjusted *t*-test resulted in a finding of no difference, *t* (18.383) = 2.005, *p* = .060. However, the *p* value with this more conservative inferential test was within 1% of statistical significance. Therefore, possible reasons for the potentially meaningful differences between administrators and the most effective

teachers on frequency of use of sustained silent reading will be further discussed in the next chapter.

Paired/Partner Student Readings Use Frequency

The use of student reading partners in high school intensive reading courses was reported more frequently by the most effective and moderately effective teachers than the least effective teachers, and a medium effect size was calculated (Tables 40, 41, 42). The mean value attributed to the paired student reading strategy by the most effective teachers was 2.710, suggesting use by these groups generally on a weekly basis but with some reporting use on a monthly basis or less. The mean score assigned by 28 administrators who supervised or evaluated reading teachers during the 2011-2012 school year was 2.610. An independent *t*-test was conducted at an alpha level of .05 to determine whether there was a statistically significant difference between these mean scores, and the result was a finding of no difference, $t\ (40) = 0.427$, $p = .672$. Therefore, both administrators and the most effective teachers reported similar experiences for frequency of use of paired/partner student readings.

Summary of Findings in Research Question 5

For all four instructional strategies that distinguished the most effective teachers from the least effective teachers, school administrators provided similar responses to the group of most effective teachers. Only sustained silent reading approached statistical significance for differences between the groups, and this reading strategy was observed less often by school administrators than use reports by the most effective classroom teachers. Additional data also suggested that some school administrators have not had

recent professional learning experiences in literacy instruction and that the group of school administrators as a whole have few reading experts in their ranks, as measured by the number of administrators who have earned a Florida Reading Endorsement.

Analysis of Qualitative Data

The five research questions at the center of this study have been reviewed from a quantitative perspective. Survey participants were also given the opportunity to respond to open-ended questions (four for teachers, three for administrators) designed to identify topics and themes that were not addressed by the other items in each survey. This framework allowed for other viewpoints, whether overlooked by the researcher or hidden from detection by the limitations of Likert items, to surface. Additionally, responses to open-ended items can triangulate or contradict the findings obtained from inferential statistics.

The qualitative data obtained from the survey items were organized by the researcher into the same three teacher effectiveness groups used to conduct the quantitative analysis. The researcher reviewed all responses once using two different frameworks: with responses grouped by participant and then responses grouped by survey question. The researcher used the first reading of the data to identify common topics and themes. A second reading was then completed for the purpose of coding the data according to the identified topics and themes. A third reading was used to ensure that no information was overlooked and to revisit coding decisions as needed.

Six unique themes emerged from the qualitative data: student relationships, student practice, student self-reflection, technology, print resources, and professional

learning. The first three themes emerged from questions about factors that contribute to teacher effectiveness, and the last three emerged from questions about support for increasing teacher effectiveness. Each of the six themes was identified by teacher participants as contributing to—or detracting from—teacher effectiveness in working with high school intensive reading students. In some cases, qualitative data from the school administrator responses supported the teachers' qualitative responses. Table 46 presents a summary of data for these six themes from both teachers and administrators.

Table 46

Qualitative Data Themes

Theme	*f*	Key Words & Phrases
Factors that contribute to teacher effectiveness		
Building positive relationships	38	Rapport, motivation, patience, care, positive reinforcement, listening to concerns, praise, understanding, trust, encouragement, self-esteem
Student practice	12	Continuous/constant practice, time to practice, practice and feedback, repetition
Student self-reflection	10	Write about their reading, monitor, rubrics, keep track of progress, inner voice, journal
Support for increasing teacher effectiveness		
Professional learning	16	training/workshop/convention, PLC, collaboration, new ideas, hands-on activities, increase knowledge of…,
Technology	12	increased access to…, computers, devices/equipment, software,
Print resources	10	reading materials, libraries, books, high-interest/diverse materials, workbooks

Note. n = 88, but 20 participants skipped all open-ended items. Each participant counted toward a theme only once regardless of length/frequency of comment.

Factors that Contribute to Teacher Effectiveness

Teacher and school administrator participants were asked to identify other strategies, techniques, or factors not specifically addressed in the survey that contribute to the success of effective high school intensive reading teachers. The three most common

themes—building positive relationships with students, student practice, and student self-reflection—are presented in the sections that follow.

Building Positive Relationships with Students

Motivation and self-efficacy (of both teachers and students) are important concepts related to providing support for non-proficient adolescent readers. It is logical that educators who believe that motivating students is an important part of instruction would also identify building a positive relationship with students as an important precursor to student success and, therefore, teacher effectiveness. The teacher and administrator surveys attempted to capture this component of high school reading courses in the second research question by asking participants about their views of the role of the classroom teacher in motivating students and overcoming external barriers to learning.

From a quantitative perspective, there were no statistically significant differences among the three teacher effectiveness groups in their responses to items related to beliefs about student achievement. Group means for the beliefs construct placed the typical response at Agree to a statement supporting the role of teachers as agents of motivation and student learning. The qualitative data reinforce a finding of no statistical significance because building positive relationships with students was perceived as an essential attribute of effective high school reading teachers by members of all three effectiveness groups.

In total, 27 of 47 (57%) teacher participants included comments related to student relationships, and all of these comments implied a link between building positive relationships and student success. Participants referencing teacher-student relationships

were fairly evenly distributed among the three effectiveness groups (10 of 14 most effective; 10 of 15 moderately effective; 7 of 12 least effective). Comment types coded to student relationships included establishing a caring classroom environment, motivating students to give effort academically and in other parts of life, providing encouragement, demonstrating care for students' well-being, building self-esteem, self-confidence, or trust, learning about students' personal challenges and showing empathy, or celebrating success (including praise, reinforcement, or reward) for doing well in class.

Although the language used to describe this construct was diverse, the message was clear: intensive reading teachers believe that building positive relationships is a precursor to the academic success of non-proficient high school readers. When asked about other factors that contribute to reading teacher effectiveness, one member of the most effective group answered:

> Building a relationship with the students and keeping abreast of their current situation as well as their progress in their other classes. Basically building the students' self-esteem and giving them a reason to care about their future and how becoming a proficient reader can help them achieve those goals. (Teacher H12)

This comment establishes the link between building teacher-student relationships and learning. Although positive relationships with students might be a part of any classroom teacher's toolbox, one teacher from the moderately effective group provided frank commentary about the context of teaching high school intensive reading:

> Another thing school and district leaders must realize is that by the time our students arrive in our [high school intensive reading] classrooms, they are so

> jaded and beaten down because they feel as if they will never achieve. The challenge becomes not only teaching the reading strategies, but truly keeping the students motivated. (Teacher E01)

Another perspective from a teacher in the moderately effective category tied the development of positive student relationships with high academic expectations:

> I believe in them and tell them daily…[but] I demand their successes and do not accept failure. Failure is going to happen and I tell them it is, but it is not acceptable. We do not quit there…we better try harder and again and again until we get it. (Teacher B04)

These are clear examples of teachers who approach the development of positive relationships with students as a means to create student learning.

Among the group of least effective teachers, the term "praise" and the phrase "get to know them" was used multiple times in connection with building student relationships. One teacher commented, "I talk to them and I listen to what they have to say. It may not always be about reading. If they know I care I am able to get more from them" (Teacher I09). This comment would suggest that sometimes reading instruction is less important than relationship development; the sentiment expressed by the teacher raises the question of whether this trade-off has an adverse impact on student learning growth.

Administrators expressed similar concerns about building positive relationships with students. Eleven of the 15 school administrators who provided qualitative commentary identified teacher-student relationships as an important contributor to teacher effectiveness as measured by student learning growth. Administrators preferred

terms such as “motivate” and “connect” to describe what an effective teacher does to build positive relationships with students.

Student Practice

Teacher participants frequently cited the importance of allocating instructional time for students to practice reading with the strategies taught and learned in intensive reading classrooms. Six of the 14 teachers in the most effective group specifically referenced ongoing practice in their response to a question about the most important factors contributing to their effectiveness as a high school intensive reading teacher. By comparison, just six of the remaining 27 teachers identified student practice as a critical success factor. These qualitative data appear to confirm the quantitative finding that the most effective teachers more frequently use student paired/partner readings than the least effective teachers. No administrators referenced student practice in the open-ended questions.

Student Self-Reflection

Another theme generated from the qualitative data was the importance of teaching students to be self-reflective. Although teachers used different words and phrases to describe this concept, the common element was teaching students to internalize when reading text. Some teacher participants also referenced student self-monitoring of progress toward academic and personal goals. One teacher from the moderately effective group tied great significance to self-reflection:

> The most important thing I teach my students is to learn how to listen to their ‘inner voice’ as they read…Struggling readers simply read the words and do not

know how to improve metacognition. Through daily monitoring and practice, the students begin to listen to their 'inner voice' and stop just reading the words. (Teacher E01)

A teacher in the most effective group also referenced explicitly teaching students to monitor their use of metacognition while reading. Although a few administrators also referenced the importance of student self-reflection, those comments tilted toward an interest in students' academic goal setting and subsequent tracking of their performance data rather than reflection on the reading process or the content of text.

Support for Increasing Teacher Effectiveness

Participants were asked to identify steps that school administrators and school district leaders should take to increase support for teachers of non-proficient high school reading students. The three most common themes—professional learning, print resources, and technology—are reported in the sections that follow.

Professional Learning

Ten teacher participants included comments that were coded to professional learning opportunities. Six of these 10 teachers were in the most effective group, suggesting a desire to implement strategies at a high level. Seven of the 10 participants requested access to formal professional learning opportunities on either instructional or reading strategies or use of technology in the classroom. The other three teachers indicated a desire to increase the amount of collaboration with other high school intensive reading teachers. Interestingly, two of these teachers are in the most effective group and the other is in the moderately effective group. Although only three teachers made the

collaboration reference, it is consistent with the quantitative finding that the most effective teachers cite collaboration with others as a source of effectiveness.

Six school administrators also identified professional learning as an ongoing need, but some of these participants identified collaboration as a current strength of their teachers' intensive reading instruction. One administrator noted a need for teachers to accelerate their progress toward completion of the Florida Reading Endorsement requirements, which is consistent with the finding of association between endorsement status and effectiveness group.

Print Resources

Nine teacher participants identified a need for additional print materials in their classrooms. These teachers were evenly distributed among the three effectiveness groups. Materials requests ranged from high-interest literature to standardized test preparation study guides. One teacher lamented the lack of "out of the box" materials for intensive reading teachers and called for resources to be generated for teachers "…so that they can focus on the delivery of the material and the engagement of their students" (Teacher E01). Interestingly, only one school administrator identified concerns about resources for intensive reading teachers. That administrator argued, "We have too many resources…streamline it and focus it" (Administrator I05). Although these comments may represent isolated viewpoints rather than conventional wisdom in the target school district, the presence of conflicting perceptions of shortage and excess capacity suggests a need to determine whether resources are equitably distributed throughout all high school intensive reading classrooms.

Technology

Teachers in all three effectiveness groups cited technology as both a contributing factor to their successes (when available) and as a barrier to their successes (when not available). One teacher in the most effective group described a technology rich classroom in which computers and voice recorders were used by all students. This teacher also noted that English Language Learners had access to translation technologies. Another teacher from the most effective group identified the use of digital annotation in texts stored in Portable Document Format (PDF) as a critical success factor. Teachers in the moderately effective and least effective groups cited lack of technology as an instructional challenge. One participant noted that students were doing "video booktalks" as a class project using personal phones and computers, but problems occurred because "I have trouble uploading their videos to my Blackboard site because the computer equipment/software in my classroom is incompatible with whatever [the students] used" (Teacher H05). Other teachers expressed a wish for greater access to devices for student use. Although no teachers credited technology-based reading curriculum as an important factor contributing to student success, two administrators identified products from commercial vendors that they believed were successful in creating student learning growth at their schools.

Summary

This chapter began with a review of the five research questions at the center of this study. The quantitative and qualitative approaches to data analysis were also discussed. The quantitative data for each research question were then presented along

with both descriptive and inferential statistics, including a series of Fisher-Freeman-Halton exact, analysis of variance, *t*, and Welch F tests. Effect sizes were computed for all statistically significant results, and significant analysis of variance tests were followed by post hoc tests. Relevant qualitative data were then presented to both triangulate and more deeply explore the quantitative findings.

Research question 1 (professional preparation to teach reading to adolescents) resulted in three statistically significant findings of difference between the most effective teachers and the two other effectiveness groups for total years of classroom teaching experience, status of Florida Reading Endorsement, and teacher perception that collaboration with others contributes to teacher effectiveness. Research question 2 (beliefs about student achievement) and research question 3 (professional practices) resulted in no statistically significant findings; there were no relevant differences between the most effective teacher group and the least effective teacher group. The lack of statistical significance is notable given current literature on the importance of variables—both those under and not under the teacher's control—outside of the classroom that may influence student learning.

Research question 4 (instructional strategies) was divided into four unique constructs. Two of these constructs—valuation of classroom strategies and frequency of use of reading strategies—were found to contain statistically significant differences between either the most effective and least effective teachers or the most effective and moderately effective teachers. Item-level analysis of the specific strategies surveyed in these constructs resulted in the identification of four statistically significant instructional

strategies: valuation of teaching students to self-monitor their progress, valuation of cooperative learning activities, frequency of use of sustained silent reading, and frequency of use of paired/partner student readings. Research question 5 (administrator agreement) examined the extent to which administrators identified strategies that differentiated the most effective and least effective teachers. For three of the four statistically significant strategies identified in the fourth research question, administrator data closely matched data from the most effective group of teachers (sustained silent reading was more different but without statistical significance).

Beyond the statistically significant findings, there were also educationally meaningful discoveries in the first and fourth research questions. Specifically, the paucity of teachers with 10 or more years of classroom teaching experience in the most effective group of teachers is cause for concern. Additionally, the reading strategies valuation construct fell just short of statistical significance but the residual between the mean scores of the most effective and least effective groups is high enough to suggest that perhaps there are real differences between these groups in the value they attach to research-based reading strategies. Finally, three classroom strategies could not be statistically evaluated because of zero variance. This phenomena occurred because all members of the most effective group responded Strongly Agree to items about the positive value of these strategies on student learning. Thus, efficient use of learning time, visual aids, and checking for understanding are important strategies to further consider when discussing the differences between the most and least effective teachers of ninth grade intensive reading.

An analysis of qualitative data gathered from teachers and school administrators at the end of the respective surveys identified six themes. Three of these themes—building positive relationships with students, student practice, and student self-reflection—related to factors that support effective instruction of high school intensive reading students. Three other themes—professional learning, print resources, and technology—reflect ongoing needs to maintain and increase teacher effectiveness.

The next chapter will provide a comprehensive summary of the scope of the study. Additionally, the researcher will present further discussion of the findings from this chapter along with implications of these findings for future practice in the target school district and elsewhere. Recommendations for further research will also be presented.

CHAPTER FIVE: DISCUSSION

Introduction

The previous chapter presented the results of this research, which sought to identify the professional and instructional differences between the most effective and least effective teachers of ninth grade intensive reading students in one Florida school district. Quantitative and qualitative analyses led to the identification of multiple variables associated with teacher effectiveness. Some of these findings were related to quality instruction, while others identified influential factors outside of the classroom.

The primary purpose of this chapter is to present extended analysis of each statistically significant and educationally meaningful finding. Additionally, this chapter returns the research to the broader context of student achievement and the education profession. The chapter begins with a summary of the research, continues with discussion of the findings from each of the five research questions, and concludes with consideration of implications for practice along with recommendations for further research.

Summary of Study

The need for this study emerged from the researcher's awareness of the challenge that high schools face when undertaking the noble work of remediating non-proficient adolescent readers. In the current era of teacher and school accountability for student learning outcomes, education professionals have both a moral imperative and policy mandate to quickly and significantly improve student reading proficiency. The high schools in the targeted school district for this research have struggled to consistently

achieve a high percentage of students making learning gains on the Reading Florida Comprehensive Assessment Test.

Working from the contemporary theory that teacher quality is the most important variable in student achievement, this study sought to identify professional and instructional factors that distinguished the most effective from the least effective teachers of ninth grade intensive reading classes. The study was operationalized by five research questions:

1) To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their professional preparation to teach literacy?
2) To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their beliefs about student achievement?
3) To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their professional practices such as planning, reflection, and collaboration with colleagues?
4) To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their valuation and use of specific instructional strategies?
5) To what extent did principals and assistant principals identify the instructional strategies that distinguish the most effective ninth grade intensive reading teachers from the least effective?

These research questions were created to align with the following constructs from scholarly literature that attempt to explain differences in teacher effectiveness: preparation to teach, beliefs about student achievement, professional practices, and the use of research-based instructional strategies in the classroom. The instructional strategies construct was subdivided into four parts: the value attached to specific classroom strategies, the value attached to specific reading strategies, frequency of use of classroom strategies, and frequency of use of reading strategies. The fifth research question was framed to determine whether the perspectives of school administrators harmonize with the viewpoints of the most effective teachers.

The research was conducted at 11 school sites with ninth grade students in one Florida school district. A total of 69 teachers and 51 school administrators were invited to participate in the study, which required completion of a researcher-created survey. The survey included items that produced both quantitative data (primarily through Likert items) and qualitative data (through open response questions). A total of 41 teachers and 47 school administrators completed the survey. The 41 teachers were subdivided into three categories (most effective, moderately effective, least effective) using effectiveness data derived from the Reading FCAT and Florida's value-added student learning growth model. Descriptive and inferential statistics were calculated and reported in the prior chapter. Qualitative data were used to identify factors that were not part of the survey and to confirm or conflict with quantitative findings.

The first research question examined possible associations between professional preparation variables and teacher effectiveness. The data from this construct supported

three statistically significant findings. There was evidence of independent associations between these variables and teacher effectiveness: years of total classroom teaching experience, status of Florida Reading Endorsement, and collaboration with others as a perceived source of effectiveness.

The second research question (beliefs about student achievement) and the third research question (professional practices) produced no statistically significant findings for association with teacher effectiveness. These results suggest insufficient evidence to explain differences in teacher effectiveness through these constructs.

The fourth research question (instructional strategies) produced several significant findings. First, the construct for valuation of classroom strategies was statistically significant, which suggests that teachers who value research-based approaches to instruction are more likely to be associated with the most effective group of teachers. Valuation of two strategies in this construct, teaching students to self-monitor progress and cooperative learning, were found to associate with differences in teacher effectiveness. Three other strategies—efficient use of learning time, visual aids, and checking for understanding—could not be evaluated from a statistical perspective, but the unanimous view of the most effective group of teachers that these strategies make a difference in the classroom is educationally relevant.

Next, the construct that measured the frequency of use of reading strategies was statistically significant. This finding suggests an association between steady or routine implementation of research-based literacy strategies and teacher effectiveness. Two strategies in this construct—sustained silent reading and paired/partner student

readings—were found to be used by the most effective teachers significantly more often than by less effective teachers. Although the other two constructs (reading strategies valuation, instructional strategies use frequency) were not statistically significant, the reading strategies valuation construct approached significance.

The fifth research question (administrator agreement) demonstrated that, in most cases, school administrators have a similar view of the strategies that distinguish the most effective from the least effective teachers. One meaningful, but not statistically significant, exception was sustained silent reading, which school administrators reported observing less than the frequency of use reported by the most effective teaches. An additional educationally meaningful finding is that the school administrator group lacks expertise in literacy instruction as measured by completion of the Florida Reading Endorsement.

Qualitative analysis of open-ended survey items revealed six distinctive themes. Teachers reported that building positive relationships with students, reading practice, and student self-reflection were critical success factors in ninth grade intensive reading classrooms. Teachers also reported that more technology, print resources, and professional learning are needed to support effective reading instruction. Administrator comments validated many of these themes.

Discussion of Findings

The results of this research identified several findings that were either statistically significant or educationally meaningful. Each finding is important enough to warrant separate consideration through a review of the data and interpretation of the results.

Extended analysis of each finding is framed within the context of the research literature and the study's methodologies and limitations. Generally, the study's limited scope—one Florida school district—and small sample size serve as a reminder that these results require confirmation through further research efforts. An additional consideration is that each finding is considered separately and independently of other findings, with the exception that some qualitative findings confirm statistically significant results; these connections are noted where applicable. This study did not attempt to consider the ways in which these independent findings interact to influence student learning growth and, by extension, teacher effectiveness.

Research Question 1

To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their professional preparation to teach literacy?

Given the large number of categorical variables involved and the diversity of both pre-service preparation and in-service professional learning opportunities available to teachers and school administrators, this research question has complex answers. This study examined several variables, including years of experience, post-secondary degrees, status of Florida Reading Endorsement, recent professional learning experiences, and personal beliefs about sources of one's effectiveness as a ninth grade intensive reading teacher. After several inferential tests of independence were conducted using Fisher-Hamilton-Halton exact tests, three statistically significant findings emerged.

First, total number of years of classroom teaching experience was found to be significantly associated with teacher effectiveness. Teachers in their first three years of classroom experience were statistically overrepresented in the moderately effective or least effective group. This finding is not surprising given that these teachers are new to the profession and need time to develop their use of instructional strategies to benefit all students. Teachers in the fourth through sixth years of experience were nearly evenly distributed across the three effectiveness groups. The large increase in teachers in the most effective group between the first three years of experience and the next three years suggests a link between more practice in the classroom and higher levels of student learning growth.

Teachers who reported seven to nine years of classroom experience were statistically overrepresented in the most effective group. Again, more opportunity to practice the craft of teaching appears to be associated with greater success in creating student learning growth. The fact that not all teachers with seven to nine years of experience were in the most effective group is evidence that experience alone doesn't explain effectiveness; other factors are interacting with experience to produce these results.

Interestingly, membership in the most effective group began to decrease after ten or more years of experience. This finding is consistent with decades of research on "burnout," or decline in performance, of midcareer teachers (Cardinell, 1981). Because the survey did not include specific items about burnout, it is not possible to test for an association between these variables. However, the survey did include one four-choice

Likert item with the following stem: I am excited about coming to work at my school every day (Appendix A, Item 19). A total of seven participants selected Disagree as a response, and six of these seven also reported ten or more years of classroom teaching experience. If an association between years of experience as an indicator of burnout or dissatisfaction and teacher effectiveness could be definitively established in future research, there would be profound implications for the entire education profession in the United States.

The second finding from the professional preparation research question was a statistically significant association between completion status of the Florida Reading Endorsement and teacher effectiveness. Specifically, teachers with the endorsement were overrepresented in the most effective group, and teachers who had not earned the endorsement were overrepresented in the least effective group. This association is intuitive because the reading endorsement was created to ensure that Florida's reading teachers have specific knowledge of the reading process and best practices for teaching it to students. It is also consistent with research from Michigan that established a link between knowledge of reading and teacher effectiveness (Kelcey, 2011) as well as a small qualitative study in Florida that connected reading endorsement to implementation of research-based literacy strategies (Greenwell, 2009). The finding of association between reading endorsement status and teacher effectiveness suggests that discipline-specific training—in this case, best practices from current research on adolescent literacy—may be more important than content learned in formal education for a degree.

However, it should be noted that a small effect size was calculated, and thus the practical significance of the association between endorsement and effectiveness may be limited. A study with a larger sample size could be useful to not only confirm the finding's significance but perhaps to also detect a larger effect. If the association is confirmed, it should be considered in relation to the hiring of new teachers or transfer of current teachers into intensive reading positions.

The last finding from the first research question was an association between the importance that teachers attributed to collaboration with others and teacher effectiveness. This item from the survey asked teachers to identify the factors that had contributed to their success as a ninth grade intensive reading teacher. Thus, this item measured the participants' perceptions of sources of their effectiveness. For the dichotomous choice related to collaboration with others, 35 of 41 participants responded in the affirmative. With all 14 teachers in the most effective group choosing collaboration as a critical success factor, this group is significantly overrepresented. Within the group of six participants who did not select collaboration with others as a reason for success, five were in the moderately effective group and one was in the least effective group. This is an interesting result because it suggests that both the most effective and least effective teachers agree that collaboration with others is a critical success factor, but moderately effective teachers are less convinced. This pattern is confirmed by results from another survey item that asked teachers to consider whether collaboration with colleagues led to better teaching; results for that item showed similar mean scores for the most effective and least effective groups, with the moderately effective group lagging behind. There are

at least two possible explanations for this unexpected outcome. One is that collaboration may be a necessary but not sufficient condition for effectiveness and that other variables work in tandem with collegiality to produce student learning growth. These types of interactions among variables are beyond the scope of this study but could serve as the basis for future research. Another possible explanation is that collaboration through professional learning communities has been a major priority in the target school district, and therefore teachers have been conditioned to respond positively to statements valuing collaboration.

Research Question 2

To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their beliefs about student achievement?

This research question was framed around the construct of teacher beliefs. As presented in the literature review, there has been voluminous study of motivation and self-efficacy. The essence of the teacher beliefs construct in this study is whether teachers who strongly believe that they can influence student achievement outcomes and overcome external challenges to student learning outperform teachers who believe that their impact on student learning is limited. The teacher beliefs construct included five survey items, and each participant's responses were aggregated together to produce mean scores by effectiveness group.

A test of inferential statistics resulted in a finding of non-association between teacher beliefs and effectiveness. Thus, for purposes of this research, independence of

the beliefs construct from the effectiveness outcome suggests a broken link between teachers' philosophies or viewpoints and student learning. The result of the inferential test is not surprising when looking at the small differences in mean construct scores among the three effectiveness groups.

One possible explanation for this finding is that high school principals in the targeted school district have carefully selected teachers for intensive reading who share similar viewpoints. In turn, these teachers may have been similarly influenced by the challenging experience of attempting to ameliorate gaps in the reading skills of adolescent students who are performing below grade level. A larger study involving more school districts could therefore yield a different outcome. Another possible explanation is that these two variables are linked, but not in a manner that was detectable by the researcher-designed survey. Perhaps the use of a self-efficacy assessment with a larger number of items would detect more subtle differences in teacher beliefs that are associated with differences in teacher effectiveness metrics. In either case, further research is necessary.

Research Question 3

To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their professional practices such as planning, reflection, and collaboration with colleagues?

This research question was framed to explore practices that teachers use outside of the classroom in the course of their daily work. Three specific professional practices—planning, reflection, and collaboration—were explored in the literature

review. To the extent that these practices are prioritized by the instructional model used in the target school district and many others in Florida, they were worthy of inclusion in the survey. Each professional practice was probed separately at the item level, and a total of four items were aggregated together to create the professional practices construct.

An inferential test of statistics to determine association between professional practices and teacher effectiveness did not detect statistically significant differences in the groups' mean scores. Thus, within the context of this study, there is no evidence to tie professional practices that support instruction to student learning growth and teacher effectiveness. The same explanations provided for non-significant findings in the second research question are also applicable here. First, it is possible that the selection of specific teachers to work with non-proficient adolescent readers has produced a pool of like-minded educators who value planning, reflection, and collaboration. Alternatively, there could be real differences between the most effective and least effective teachers in these skill areas, but the instrumentation lacked the sophistication to identify those differences.

A third possibility unique to this construct is that collaboration through Professional Learning Communities has been so heavily prioritized by the targeted school district that teachers have been conditioned to respond favorably to any mention of the role that collegiality plays on their school campuses. This explanation would fit with a significant finding from the first research question: both the most effective and least effective teachers identified collaboration with others as a self-perceived reason for their effectiveness in the classroom. Thus, the least effective teachers—those with the lowest

percentage of students meeting learning growth expectations—felt they were successful due to collaboration. Given these discursive results, further study using a quantifiable measure of how much each educator actually engages in meaningful collaboration with fellow teachers might be a way to resolve the connection between collegiality and teacher effectiveness.

Research Question 4

To what extent did the most effective and least effective teachers of ninth grade intensive reading classes with non-proficient students differ in their valuation and use of specific instructional strategies?

The breadth of this research question is quite large given the growing body of literature on research-based instructional strategies. The researcher conceptualized this question as including four distinct but linked constructs: valuation of general classroom strategies, valuation of reading strategies, frequency of use of general classroom strategies, and frequency of use of reading strategies. Separation of general strategies from reading strategies was important since the former are applicable to all teachers while the latter contains best practices most often used by teachers of non-proficient adolescent readers. Further separation between valuation and use frequency was designed to account for differences between theory and practice. For example, one might believe that a specific strategy is not important but still uses it often because a supervisor expects to see it. Alternatively, one might believe that a specific strategy is very important but fails to use it often due to its complexity or the length of time needed to implement it.

The researcher developed the instrument around these four constructs, with each item in the strategies section aligned to only one construct. After aggregation of item-level data into construct means, inferential statistical tests were applied to each construct. Data from two of the four constructs, valuation of general classroom strategies and use frequency of reading strategies, produced statistically significant test results. Practically, these results mean that there is an association between the value attached to general classroom strategies and teacher effectiveness and a separate association between the frequency of use of reading strategies and teacher effectiveness.

Before exploring the statistically significant constructs further, it is important to note that the test for significance of valuation of reading strategies fell just outside the range of statistical significance. Despite a higher mean for the most effective group of teachers than for the least effective group of teachers, there was insufficient evidence to overcome the null hypothesis of no difference. However, the extremely close nature of this result warrants further research, particularly with a larger sample size that would result in increased power to detect significance.

In spite of the perils associated with increasing Type I error, the researcher decided that there could be great educational value from testing each item within the statistically significant constructs to identify the specific strategies that were more valued or more used by the most effective teachers. These additional tests were successful in identifying specific strategies associated with teacher effectiveness. Within the general classroom strategies valued construct, there were two statistically significant findings and three additional educationally meaningful results.

Teaching students to self-monitor their progress was identified as much more highly valued by the most effective teachers than by the least effective teachers. This skill is closely linked to high-level implementation of goals, scales, and rubrics (Marzano, 2007) and also has specific applications in reading classrooms (Taylor, 2007). The quantitative finding of significance in this research is also supported qualitatively by comments from teacher participants about the importance of student self-reflection during the reading process.

Cooperative learning activities were likewise most highly valued by the most effective teachers with less value assigned by moderately effective and the least effective teachers. The benefits of cooperative learning and the diversity of implementation methods have been widely documented in the literature (Hattie, 2009; Hill & Flynn, 2006; Marzano & Heflebower, 2012). This finding suggests that teachers in the lowest two effectiveness groups would benefit from opportunities to engage in professional learning and practice on the use of cooperative learning activities.

Three additional strategies were not empirically tested due to violations of statistical testing principles. Efficient use of learning time, visual aids/graphic organizers, and checking for understanding were identified by every member of the most effective group of teachers as highly valued instructional strategies. Although the lack of variance made statistical testing moot, it is educationally meaningful that a group of teachers across 11 school sites whose responses to other items contained variance unanimously agreed that this group of strategies is very important.

Within the reading strategies use frequency construct, two specific strategies were reportedly used more often by the most effective teachers than the other groups. First, sustained silent reading was used much more frequently by the most effective group than the least effective group. The benefits of sustained silent reading have been extensively identified in the research literature, and implementation of this strategy is closely related to other research-based strategies such as diverse classroom libraries and self-reflection through the use of journals (Biancarosa & Snow, 2006; Ivey & Broaddus, 2001; Lee, 2011). Because the effect size for the finding of association between sustained silent reading and teacher effectiveness was determined to be large, it should be an important consideration for the target school district.

Additionally, paired/partner readings were used more often by the most effective group than both the moderately effective and least effective groups. Paired/partner readings have been identified in the research as an efficient way to create opportunities for student practice (Irvin, Buehl, & Klemp, 2003), and student practice was identified as a critical success factor in the qualitative component of this research. Although post-hoc pairwise comparisons did not detect significance at the same level as the omnibus test, this result is likely attributable to the small sample size and the conservative nature of the post-hoc tests. Thus, increased use of paired/partner readings by all teachers might increase student achievement in the target school district.

It is also important to consider the context of these findings within the framework of the entire fourth research question. The results of this study suggest that, at least in the target school district, there are a specific set of research-based instructional strategies that

are associated with the most effective group of teachers rather than teachers with less success. Whether these same strategies would be associated with effectiveness in other school districts and classrooms is unknown. Additionally, this exploratory study was not intended to consider the effects that occur when these strategies interact with one another. Nor did this study consider the quality of implementation of each strategy in the participants' classrooms. A better understanding of interaction effects and quality implementation could greatly inform teacher preparation and professional learning. These limitations and opportunities may be of further interest to the target school district and other researchers as areas of future consideration.

Research Question 5

To what extent did principals and assistant principals identify the instructional strategies that distinguish the most effective ninth grade intensive reading teachers from the least effective?

There has been much discourse about the ways in which instructional leadership can influence teacher practice and, by extension, student achievement. In this study, the researcher was interested in determining whether school administrators valued and observed those strategies that reached statistical significance on the teacher survey. For all four strategies meeting this standard, there was no statistically significant difference between administrators and the most effective teachers. Thus, school administrators in the target school district appear to value teaching students to self-monitor their progress and cooperative learning about as much as the most effective teachers value these strategies. Additionally, school administrators reported observing paired/partner student

readings nearly as frequently as the most effective teachers reported using it. There was, however, a disconnect between teachers and school administrators regarding use frequency of sustained silent reading, with the mean for school administrators below the mean for highly effective teachers. This difference may be rooted in several explanations. One possibility is that school administrators move quickly through classrooms engaged in sustained silent reading because the teacher is not providing direct instruction or facilitating student work, and therefore school administrators recollect observing sustained silent reading less often than actual use in classrooms. Another possibility is that sustained silent reading is used during parts of the class period when administrators are less likely to see it due to their other managerial responsibilities (e.g. start or end of a class period). It is also possible that teachers use sustained silent reading as a method of instructional differentiation and, therefore, it may not be correctly identified when only a few students are engaged in independent reading in the classroom. A final possibility is that the most effective teachers simply overreported use of the strategy; however, this outcome seems unlikely since the teachers were spread across 11 school sites.

One additional finding from the data in the school administrator survey is the need for more principals and assistant principals to receive professional learning in adolescent literacy. Twenty percent of the school district's high school administrators reported no exposure to professional learning on literacy instruction in the 2011-2012 school year. Although only a portion of the target school district's high school administrators actually supervise and evaluate ninth grade intensive reading teachers, all

of them are responsible in some fashion for the supervision and evaluation of instructional personnel. Because the forthcoming Common Core State Standards place a high degree of emphasis on the infusion of demanding literacy standards into all disciplines, additional professional learning opportunities for high school administrators may be a wise investment of resources. Additionally, just two high school administrators reported completion of a Florida Reading Endorsement. Although this add-on to the education certification involves hundreds of hours of study, the high school administrative team in the target school district might collectively benefit from more "adolescent literacy experts" within its ranks.

Qualitative Analyses

The researcher included four open-ended response questions on the teacher survey and three on the school administrator survey. These items were developed as a means to identify other possible distinguishing factors that were not part of the other sections on the survey. Additionally, the questions were designed to solicit responses that might confirm or conflict with the quantitatively significant findings. After reviewing participant responses and coding them by topic area, the researcher identified six relevant themes—three related to other factors that teachers link to their effectiveness and three related to supports that teachers need to maintain or increase their effectiveness.

Development of positive relationships with students was identified by a large number of both teacher and school administrator participants as a component of successful support for non-proficient readers. This finding is consistent with literature on effective instruction, which has examined this issue through the lens of teacher

development of a positive classroom climate (Hattie, 2009; Marzano, 2007; Taylor 2007). Within the teacher group, those who cited positive relationship development were members of all three effectiveness groups; this finding is similar to the results from the second research question, in which there were no differences among effectiveness groups in teacher beliefs about student achievement, including teacher role in student motivation. Though no definitive conclusions can be drawn from this finding, it is plausible that the ability to develop positive relationships with adolescents who have experienced reading challenges in the past is a necessary but not sufficient condition for student learning growth.

Another theme identified by teachers as an important mechanism for supporting intensive reading students was allocating sufficient time for students to practice the reading process. Classroom teachers can establish opportunities for student practice through a variety of specific structures and strategies that were incorporated into the survey, including sustained silent reading and paired/partner student reading; these two strategies were discussed earlier as statistically significant strategies from the use frequency construct. Practice is included as a significant theme from the qualitative data because six of the 14 teachers in the most effective group independently identified time for practice as an important priority, while just four of the 27 teachers from the other two effectiveness groups identified practice. Thus, the quantitative data related to sustained silent reading and paired/partner student readings appears to harmonize with the qualitative theme of practice.

The third theme identified as a critical success factor in the qualitative data was providing students with the skills and time to engage in self-reflection. This theme is closely aligned to the concept of teaching students to self-monitor their progress, which was discussed earlier as statistically significant for association with teacher effectiveness. Teachers and one administrator who wrote about student self-reflection in the open response items included commentary related to student processing of texts as well as students' thinking about the reading process, their personal use of reading strategies, and their progress toward reading proficiency.

Three additional themes emerged from the qualitative data related to ongoing needs of teachers to maintain and enhance student learning. Teachers cited a desire for greater access to technology, additional print resources for classrooms, and more opportunities for professional learning, including both formal training and informal collaboration with colleagues. These themes reflect the specific needs of ninth grade intensive reading teachers in the targeted school district and therefore cannot be generalized to other settings without additional surveys and research. Nevertheless, the researcher included these themes in qualitative findings for the specific benefit of the targeted school district.

Implications for Practice

The preceding sections of this chapter presented each statistically significant and educationally meaningful finding within each research question. Instrumentation and study limitations were included along with possible explanations for results. Although implications for practice can be inferred from much of the prior discussion, the analysis

that follows attempts to consider the impact of all of the findings and how they fit together to create a system of literacy improvement in high schools.

Implications for Teachers

The findings of this research provide actionable information to teachers of ninth grade intensive reading in the targeted school district. From a narrow interpretation of the data, these teachers should consider learning more about, and increasing use of, the following strategies: teaching students to self-monitor progress including the importance of self-reflection as a component of monitoring, cooperative learning, sustained silent reading, and paired/partner student readings. Additionally, strong consideration should be given to increasing efficiency of learning time (perhaps by optimizing classroom routines and activity transitions), graphic organizers and visual aids that help students to process information, and checking for student understanding. These strategies are certainly not the only ones that are helpful to students, so this list should not replace other research-based strategies that teachers may use in their classrooms. Results of this study simply suggest that the strategies listed above are associated with the practices embraced and used by the most effective teachers in the participant group.

Given the quantitative and qualitative findings related to the importance of collegial collaboration, classroom teachers should consider working together to deepen their understanding of these strategies and design implementation plans for specific lessons and texts. When practiced effectively, collaboration allows diffusion of knowledge from experts to others and facilitates efficient use of teachers' scarce time.

Professional learning communities and lesson study teams are optimal venues for collaboration to improve teacher use of research-based strategies.

The research findings also suggest that intensive reading teachers who have not yet completed the Florida Reading Endorsement should work diligently to finish the coursework requirements. The significant overrepresentation of reading endorsed teachers in the most effective group suggests that the components of the endorsement may contain valuable content that teachers can use to improve student learning. Although the reading endorsement process is lengthy and requires teacher commitment, the investment of time and energy appears to pay substantial dividends to students in ninth grade intensive reading classrooms.

Teachers outside of the target school district should consider these research findings, particularly the list of strategies associated with student learning growth, within the context of their own classroom dynamics, school environment, and school district priorities. All of these strategies have been identified in other scholarly research as contributing to student learning growth, so experimenting with one or more from the list may be beneficial to students in any environment. Some of the strategies identified above, such as sustained silent reading and teacher collaboration through professional learning communities, have been implemented in the target school district only with significant human and financial resource support at the school district and school levels. Thus, robust implementation elsewhere may require resources beyond an individual teacher's reach. For example, sustained silent reading was implemented in the target school district along with deployment of classroom libraries with high-interest literature

in multiple genres, and development of professional learning communities necessitated the creation of common planning time for teachers and abandonment of some traditional faculty meetings.

Implications for School Administrators

High school principals and assistant principals in the target school district can use the findings of this research to deepen their understanding of effective teaching by devoting time to the study of the instructional strategies that were identified as statistically significant or educationally meaningful. Because many of these strategies are closely aligned to indicators in the target school district's instructional model and personnel evaluation system, the time invested learning more about these strategies will be relevant to multiple job functions. Additionally, the research findings suggest a need for more high school administrators to pursue formal learning opportunities related to literacy instruction, including the Florida Reading Endorsement. Whether through a strategies-based approach or reading process approach, high school administrators who engage in professional learning on literacy instruction can become more informed leaders and, therefore, function as more skilled observers, supervisors, and evaluators of intensive reading teachers.

A second implication for practice for school administrators is consideration of these findings in the context of human resources processes. Teachers in other disciplines who have experience with the strategies identified as associated with highly effective intensive reading teachers may be prime candidates for recruitment to teach courses for non-proficient readers. Additionally, interviews to fill vacancies for intensive reading

teachers should incorporate questions and activities designed to evaluate each candidate's experience implementing research-based strategies and collaborate with others to plan and improve instruction. Finally, school administrators should consider counseling current intensive reading teachers who have not completed the Florida Reading Endorsement to do so as quickly as possible, and school administrators should support these teachers throughout that process.

Teacher participants in this research identified three needs to maintain and improve effective reading instruction in the targeted school district: more access to technology, more access to print resources, and more opportunities for professional learning. Fulfillment of each of these needs requires administrative action to allocate time and financial resources. Administrators should consider working with classroom teachers to create action plans that provide for these three needs.

School administrators should also carefully consider the implications of the findings related to the association between years of classroom teaching experience and teacher effectiveness. The general decline in student performance for teachers in this study with 10 or more years of experience should be alarming to principals and assistant principals. Instructional personnel in this category may need support from their school administrators to overcome issues such as declining motivation, diminished self-efficacy, feelings of isolation or boredom, and lack of a career ladder. Student achievement can be greatly improved by innovative school administrators who are able to rekindle a seasoned but disenchanted teacher's passion for classroom instruction.

In the same fashion that teachers outside of the target school district must evaluate these findings for generalizability to their own setting, school administrators outside of the target school district must conduct the same evaluation. School administrators can observe their own teachers to determine how often the research-based strategies are actually used in their classrooms, and then decide whether to work with teachers to increase use of one or more of these strategies. Again, some strategies require a more extensive investment of time and resources than others.

Implications for School District Decision-Makers

The target school district may wish to consider facilitating the suggestions made in the prior two sections by providing coordination services and technical assistance from the reading experts who work at the school district central office, particularly in the area of professional learning for teachers and administrators. Additionally, the target school district may want to consider whether it can assist with the technology, print, and professional learning needs expressed by the ninth grade intensive reading teachers.

The target school district, and other school districts interested in the findings of this research, should review their human resources and professional development practices related to support for teachers pursuing a Florida Reading Endorsement and administrators pursuing School Principal certification through a district leadership development program. Additionally, school districts should consider using this research and other literature on effective adolescent literacy instruction to develop a profile of the characteristics, beliefs, and skills possessed by the most effective teachers in this discipline. This profile could then be used to inform the hiring of appropriate candidates

for vacancies in intensive reading, locate current faculty from other departments who could be successful as intensive reading teachers, and identify deficiencies in current reading teachers' skills.

School districts should also consider the implications of the years of experience finding from the first research question. The results from the data compiled in this research suggest that new teachers need more support to achieve high levels of student learning growth in intensive reading classes. Additionally, the presence of an experience plateau, beyond which veteran teachers are overrepresented in the less effective teacher groups, should be of great concern to senior school district administrators. Whether because of burnout or other factors, the plateau effect has been reported in other research studies and observed in this one as well. This is an unfortunate problem because these teachers have the necessary knowledge and experience to be successful, yet for whatever reason they are not able to produce correspondingly high rates of student learning growth. If this finding interests either the target school district or others in Florida and beyond, then further study should be undertaken to confirm the presence of this problem across multiple grade levels and disciplines. After verification that the midcareer effect is indeed present, school districts should consider what steps can be taken to reinvigorate midcareer teachers. For example, much has been written about the need for career ladders in public education, but much less action has actually been taken to create pathways for development of master teachers who can act as mentors and coaches to others.

Implications for Teacher Preparation Programs

Pre-service education preparation programs should consider the findings of this study within the context of their pedagogy and methods courses. Pre-service teachers need exposure to research-based instructional strategies during their coursework and structured opportunities to practice these strategies during their internship experiences so that they are ready to teach effectively in their first instructional position. Program leaders may wish to study whether current faculty have sufficient knowledge of and experience with research-based strategies to effectively support their pre-service students. Additionally, program leaders may need to work with school districts to ensure that teachers selected to host and supervise interns are effective users of research-based strategies.

Recommendations for Further Research

Throughout this chapter, the review of findings has been accompanied by discussion about possible explanations as well as identification of the limitations of this study. In this section, general recommendations for further research are provided within the context of both addressing the limits of this study and extending its findings.

First, this study was limited to one school district in Florida. The benefits of an effort to replicate this research with both more school districts and more teachers are obvious. Confirmation of findings with a larger sample would increase the magnitude of the call to action created by the results of this study. Additionally, a larger participant group would increase the power of inferential statistical tests to detect significant differences between groups of teachers. The scope of the research could also be

expanded to examine middle school reading teachers, reading intervention teachers in primary grades, or the use of instructional strategies in other academic disciplines.

Second, the instruments used in this research were created by the researcher. The methodology chapter documents the efforts that were undertaken to establish content validity of the instruments. Revision of the instrument is recommended to both meet the needs of other school districts and increase precision. For example, additional items should be added to section two of the teacher survey for the purpose of deepening exploration of the beliefs about student achievement and professional practices constructs. This study's inability to detect statistically significant differences among the most and least effective teachers for these two constructs may very well be a result of the instrument's shortcomings rather than the reality of how these factors influence student learning. An additional recommendation for future research would be to incorporate interviews of teachers into the qualitative methodology. This researcher chose not to pursue that line of research in order to ensure anonymity of the participants because of the researcher's employment relationship with the target school district, but a third party researcher might raise fewer concerns regarding participant anonymity.

A third limitation of the current study is the use of just one year of student learning data to classify teachers by level of effectiveness. This limitation was necessitated by the decision to use the percentage of students meeting learning growth expectations as the measure of teacher effectiveness. This new metric was derived from Florida's value-added model, which was introduced in the 2011-2012 school year. If the controversial value-added model becomes entrenched in Florida public education, then

researchers will be able to aggregate multiple years of effectiveness data to increase confidence that teaches are correctly assigned to an effectiveness group. Additionally, researchers may want to consider whether supervisor ratings of teachers should also be used for assignment to effectiveness groups. Because the target school district had completed only one year of implementation of its new evaluation system, the researcher chose not to pursue use of administrator ratings of teacher performance. Researchers working in states or districts with more mature evaluation systems might wish to consider how supervisor appraisal data could be used to increase certainty that teachers are assigned to the effectiveness group that mostly accurately represents their true performance.

This study relied on self-reported data to identify significant instructional differences between the most effective and least effective ninth grade intensive reading teachers. The study did not attempt to verify that teachers' responses were an accurate representation of what actually takes place in their classrooms. Further study might include researcher observation of teachers to confirm that strategies are implemented with fidelity and actual use frequency is consistent with self-reported data.

Future research could also focus on deeper study of specific instructional strategies to determine the ways in which the most effective classroom teachers use those strategies to optimize student learning. For example, what is the ideal frequency and duration of sustained silent reading? Another line of inquiry might examine which types of cooperative learning activities or graphic organizers are most useful for specific groups of students.

An additional recommendation for future research is to design a methodology that would lead to a better understanding of how sets of research-based instructional strategies can be used together to accelerate student learning. An advanced statistician might want to consider studying the relative impact of each individual strategy in a group of strategies by considering interaction effects among the strategies. This type of effort might help teachers to prioritize certain types of strategies with specific groups of students.

Conclusions

This research was implemented to address a specific need in the targeted school district, and that school district's instructional priorities were considered during the development of methodology and instrumentation. However, the problem that was studied—identification of effective instruction for non-proficient adolescent readers— is a nationwide challenge that has troubled teachers, administrators, and policymakers for more than a decade. This study identified several statistically significant and educationally meaningful differences between the most effective and least effective teachers of ninth grade intensive reading students in the target school district. These findings are consistent with other research methodologies that have shown an association between implementation of specific instructional strategies and student learning. Although much additional research is needed to confirm these findings and develop more specific recommendations for educators and school administrators, this study raises the prospect that actions can be taken to provide less effective intensive reading teachers with proven tools to improve instruction and increase student learning growth. Improvement

of classroom instruction is a complex and challenging initiative that can only enhance the national effort that is underway to ensure that every child can read proficiently.

APPENDIX A
SURVEY:
DIMENSIONS OF EFFECTIVE
HIGH SCHOOL READING TEACHERS

Section One

Items with an asterisk require a response.

***1. In the 2011-2012 school year, I taught intensive reading students who were:**

- ◯ A. In 9th grade only
- ◯ B. In 10th grade only
- ◯ C. In 9th and 10th grade

***2. In the 2011-2012 school year, I taught intensive reading students who were:**

- ◯ A. General education only.
- ◯ B. ELL only.
- ◯ C. ESE only.
- ◯ D. ELL and ESE.
- ◯ E. General education and ELL.
- ◯ F. General education and ESE.
- ◯ G. General education, ESE, and ELL.

***3. I have been a classroom teacher for:**

- ◯ A. 1-3 years.
- ◯ B. 4-6 years.
- ◯ C. 7-9 years.
- ◯ D. 10-20 years.
- ◯ E. 21 or more years.

***4. I have been a high school intensive reading teacher for:**

- ◯ A. 1-3 years.
- ◯ B. 4-6 years.
- ◯ C. 7-9 years.
- ◯ D. 10 or more years.

Section One (ctd.)

5. My undergraduate degree major:

5a. In undergraduate degree major, I took coursework in teaching reading:

- A. Yes
- B. No

5b. In undergraduate degree major, I took coursework in teaching reading to adolescents:

- A. Yes
- B. No

6. My highest graduate degree level:

- A. No graduate degree
- B. Masters
- C. Specialist
- D. Doctorate

Section One (ctd.)

6a. My graduate degree major:

6b. In graduate degree major, I took coursework in teaching reading:

- ◯ A. Yes
- ◯ B. No

6c. In graduate degree major, I took coursework in reading to adolescents:

- ◯ A. Yes
- ◯ B. No

7. The status of my Florida Reading Endorsement is:

- ◯ A. Hold a Florida Reading Endorsement
- ◯ B. Completed one or more competencies toward the Florida Reading Endorsement
- ◯ C. Not reading endorsed but would like to pursue it
- ◯ D. Not reading endorsed and do **not** want to pursue it

8. In the 2011-2012 school year, I attended the following professional learning opportunities (select all that apply):

- ☐ A. I participated in a Professional Learning Community that focused on effective instructional strategies.
- ☐ B. I participated in a Professional Learning Community that focused on implementation of a reading/literacy program/curriculum.
- ☐ C. I attended in-service on teaching reading/literacy led by a school administrator.
- ☐ D. I attended in-service on teaching reading/literacy led by an instructional/reading coach or teacher.
- ☐ E. I attended in-service on teaching reading/literacy led by a district-level administrator/teacher.
- ☐ F. I attended a workshop or conference about reading/literacy instruction organized outside of my district.
- ☐ G. I did not participate in any professional learning on reading/literacy instruction.
- ☐ H. I read and improved my skills as a reading/literacy teacher on my own.

Other opportunity. Please explain.

9. The following best describes how I have become an effective high school intensive reading teacher (select all that apply):

- [ ] A. Self taught by reading, conversations, seeking answers online
- [ ] B. Formal education either undergraduate or graduate
- [ ] C. School district professional learning
- [ ] D. School level learning
- [ ] E. Collaboration with others who teach high school intensive reading
- [ ] F. I do not consider myself to be an effective high school intensive reading teacher.

Other reason. Please explain:

Section Two

For questions 10-19, rate each statement on this scale:

Strongly Agree Agree Disagree Strongly Disagree

10. I believe high school students in intensive reading classes can improve in reading.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

11. I believe I know how to improve reading of non-proficient high school readers.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

12. One of my primary responsibilities is student motivation.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

13. The quality of the classroom teacher is the most important variable in improving achievement of non-proficient high school readers.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

14. There are factors external to school that even the most effective teachers of non-proficient high school readers cannot overcome.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

15. Instructional planning is very important in the teaching of reading.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

16. Classroom management is a prerequisite for effective teaching.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

17. I am a better teacher when I collaborate with my colleagues.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

18. I allocate time every day to reflect on my teaching and how to improve.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

19. I am excited about coming to work at my school every day.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

Section Three

For questions 20-41, rate each statement on this scale:

Strongly Agree Agree Disagree Strongly Disagree Don't know strategy

I believe this instructional strategy positively impacts high school student improvement in reading:

20. Posting and communicating daily and long term learning goals

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

21. Assisting students with setting their own goals

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

22. Teaching students to self-monitor their progress

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

23. Establishing and maintaining classroom routines

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

24. Chunking content into manageable length and content segments

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

25. Using similarities and differences at low, moderate, and high levels

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

26. Leading students through guided practice

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

27. Efficient use of learning time

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

28. Cooperative learning activities

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

29. Visual aids, nonlinguistic representations, and/or graphic organizers

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

30. Checking for understanding

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

31. Providing daily homework

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

32. Sustained silent reading

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

33. Student reading one-on-one with teacher

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

34. Paired/partner student readings

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

35. Choral readings

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

36. Round robin reading

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

37. Using a classroom library with diverse offerings

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

38. Word wall for vocabulary

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

39. Hot and cold readings

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

40. Text coding/annotating

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

41. Question-Answer-Relationship (QAR) activities

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

Section Three (ctd.)

For questions 42-63, rate each statement on this scale for how often you use the instructional strategy in your classroom:

Every day At least weekly At least monthly Never Don't know strategy

42. Posting and communicating daily and long term learning goals

Every day ○ At least weekly ○ At least monthly ○ Never ○ Don't know strategy ○

43. Assisting students with setting their own goals

Every day ○ At least weekly ○ At least monthly ○ Never ○ Don't know strategy ○

44. Teaching students to self-monitor their progress

Every day ○ At least weekly ○ At least monthly ○ Never ○ Don't know strategy ○

45. Establishing and maintaining classroom routines

Every day ○ At least weekly ○ At least monthly ○ Never ○ Don't know strategy ○

46. Chunking content into manageable length and content segments

Every day ○ At least weekly ○ At least monthly ○ Never ○ Don't know strategy ○

47. Using similarities and differences at low, moderate, and high levels

Every day ○ At least weekly ○ At least monthly ○ Never ○ Don't know strategy ○

48. Leading students through guided practice

Every day ○ At least weekly ○ At least monthly ○ Never ○ Don't know strategy ○

49. Efficient use of learning time

Every day ○ At least weekly ○ At least monthly ○ Never ○ Don't know strategy ○

50. Cooperative learning activities

Every day ○ At least weekly ○ At least monthly ○ Never ○ Don't know strategy ○

51. Visual aids, nonlinguistic representations, and/or graphic organizers

Every day ○ At least weekly ○ At least monthly ○ Never ○ Don't know strategy ○

52. Checking for understanding

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

53. Providing daily homework

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

54. Sustained silent reading

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

55. Student reading one-on-one with teacher

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

56. Paired/partner student readings

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

57. Choral readings

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

58. Round robin reading

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

59. Using a classroom library with diverse offerings

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

60. Word wall for vocabulary

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

61. Hot and cold readings

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

62. Text coding/annotating

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

63. Question-Answer-Relationship (QAR) activities

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

Section Four

Please provide additional information to assist the school district in improving high school intensive reading.

64. Are there other strategies, techniques, or factors not in this survey that contribute to your success in working with non-proficient readers?

65. In your opinion, what are the 3 most important things you do to support non-proficient readers?

66. What can school and school district leaders do to assist you in improving reading of non-proficient high school readers?

67. Please add anything about your use of instructional strategies that you believe will improve literacy.

APPENDIX B
SURVEY:
DIMENSIONS OF EFFECTIVE HIGH SCHOOL READING TEACHERS— ADMINISTRATOR PERSPECTIVE

Section One

1. My undergraduate degree major:

1a. In undergraduate degree major, I took coursework in teaching reading:

- A. Yes
- B. No

1b. In undergraduate degree major, I took coursework in teaching reading to adolescents:

- A. Yes
- B. No

2. My highest graduate degree level:

- A. No graduate degree
- B. Masters
- C. Specialist
- D. Doctorate

Section One (ctd.)

Questions with an asterisk require a response.

2a. My graduate degree major:

2b. In graduate degree major, I took coursework in teaching reading:

- ◯ A. Yes
- ◯ B. No

2c. In graduate degree major, I took coursework in reading to adolescents:

- ◯ A. Yes
- ◯ B. No

3. The status of my Florida Reading Endorsement is:

- ◯ A. Hold a Florida Reading Endorsement
- ◯ B. Completed one or more competencies toward the Florida Reading Endorsement
- ◯ C. Not reading endorsed but would like to pursue it
- ◯ D. Not reading endorsed and do **not** want to pursue it

4. In the 2011-2012 school year, I attended the following professional learning opportunities (select all that apply):

- ☐ A. I participated in a Professional Learning Community that focused on effective instructional strategies.
- ☐ B. I participated in a Professional Learning Community that focused on implementation of a reading/literacy program/curriculum.
- ☐ C. I attended in-service on teaching reading/literacy led by a school administrator.
- ☐ D. I attended in-service on teaching reading/literacy led by an instructional/reading coach or teacher.
- ☐ E. I attended in-service on teaching reading/literacy led by a district-level administrator/teacher.
- ☐ F. I attended a workshop or conference about reading/literacy instruction organized outside of my district.
- ☐ G. I did not participate in any professional learning on reading/literacy instruction.
- ☐ H. I read and improved my skills as a reading/literacy teacher on my own.

Other opportunity. Please explain.

***5. Years of experience in an Instructional Position (classroom teacher, dean, guidance counselor, instructional coach, etc.):**

- ◯ --1-3
- ◯ --4-6
- ◯ --7-9
- ◯ --10-20
- ◯ --21 or more

***6. Years of experience as an Administrator (Principal, Assistant Principal, District Office):**

- ◯ --1-3
- ◯ --4-6
- ◯ --7-9
- ◯ --10-20
- ◯ --21 or more

Section Two

For questions 7-16, rate each statement on this scale:

Strongly Agree Agree Disagree Strongly Disagree

7. Intensive reading teachers should believe that their students can improve in reading.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

8. Intensive reading teachers should know how to improve reading of non-proficient high school readers.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

9. A primary responsibility of intensive reading teachers is student motivation.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

10. The quality of the intensive reading classroom teacher is the most important variable in improving achievement of non-proficient high school readers.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

11. There are factors external to school that even the most effective teachers of non-proficient high school readers cannot overcome.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

12. In intensive reading classes, instructional planning is important.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

13. In intensive reading classes, classroom management is important.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

14. In intensive reading classes, collaboration with colleagues is important.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

15. Intensive reading teachers should allocate time every day to reflect on teaching and how to improve.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

16. Intensive reading teachers at my school are excited about coming to work every day.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

Section Three

For questions 17-38, rate each statement on this scale:

Strongly Agree Agree Disagree Strongly Disagree Don't know strategy

I believe this instructional strategy positively impacts high school student improvement in reading:

17. Posting and communicating daily and long term learning goals

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

18. Assisting students with setting their own goals

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

19. Teaching students to self-monitor their progress

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

20. Establishing and maintaining classroom routines

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

21. Chunking content into manageable length and content segments

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

22. Using similarities and differences at low, moderate, and high levels

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

23. Leading students through guided practice

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

24. Efficient use of learning time

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

25. Cooperative learning activities

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

26. Visual aids, nonlinguistic representations, and/or graphic organizers

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

27. Checking for understanding

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

28. Providing daily homework

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

29. Sustained silent reading

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

30. Student reading one-on-one with teacher

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

31. Paired/partner student readings

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

32. Choral readings

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

33. Round robin reading

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

34. Using a classroom library with diverse offerings

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

35. Word wall for vocabulary

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

36. Hot and cold readings

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

37. Text coding/annotating

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

38. Question-Answer-Relationship (QAR) activities

Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know strategy
○	○	○	○	○

Section Three (ctd.)

This question requires a response.

***39a. In the 2011-2012 school year, did you write evaluations of reading teachers?**

- ◯ A. Yes
- ◯ B. No

Section Three (ctd.)

This question requires a response.

*39b. In the 2011-2012 school year, did you conduct walkthroughs in reading classrooms?

- ◯ A. Yes
- ◯ B. No

Section Three (ctd.)

For questions 40-61, rate each statement on this scale for how often you observe this instructional strategy actually used in reading classrooms:

Every day | At least weekly | At least monthly | Never | Don't know strategy

40. Posting and communicating daily and long term learning goals

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

41. Assisting students with setting their own goals

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

42. Teaching students to self-monitor their progress

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

43. Establishing and maintaining classroom routines

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

44. Chunking content into manageable length and content segments

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

45. Using similarities and differences at low, moderate, and high levels

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

46. Leading students through guided practice

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

47. Efficient use of learning time

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

48. Cooperative learning activities

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

49. Visual aids, nonlinguistic representations, and/or graphic organizers

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

50. Checking for understanding

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

51. Providing daily homework

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

52. Sustained silent reading

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

53. Student reading one-on-one with teacher

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

54. Paired/partner student readings

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

55. Choral readings

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

56. Round robin reading

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

57. Using a classroom library with diverse offerings

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

58. Word wall for vocabulary

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

59. Hot and cold readings

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

60. Text coding/annotating

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

61. Question-Answer-Relationship (QAR) activities

Every day	At least weekly	At least monthly	Never	Don't know strategy
○	○	○	○	○

Section Four

Please provide additional information to assist the school district in improving high school intensive reading.

62. Are there other strategies, techniques, or factors not in this survey that contribute to your intensive reading teachers' success in working with non-proficient readers?

63. In your opinion, what are the 3 most important things your intensive reading teachers do to support non-proficient readers?

64. Please add anything about your intensive reading teachers' use of strategies that you believe will improve literacy.

APPENDIX C
INFORMED CONSENT LETTER FOR TEACHERS

Go to https://www.surveymonkey.com/s/readingt

September 13, 2012

Dear Reading Teacher:

Thank you for taking the time to participate in this important study about instructional practices used by high school intensive reading teachers. The title of this research is *Deconstructing Differences in Effectiveness of Reading Teachers of Ninth Grade Non-Proficient Readers in One Florida School District.* You are among approximately 160 educators who have been invited to provide input for this research. My hope is that this study will contribute to our understanding of what can be done to improve support for teachers of high school reading.

Your participation in this study is entirely voluntary. Whether or not you take part is your choice. You may elect to participate now or at a later period or change your mind while in the process of participating in the study. There is no consequence for your decision to accept or decline participation in the study. You must be 18 years of age or older to take part in this research study.

This study involves the matching of quantitative data about student and teacher performance to your views about classroom teaching and reading instruction. This is an anonymous study, and your anonymity will be maintained through use of an alpha-numeric code that you will enter at the start of the survey. The code was assigned by an employee of your school district who will not have access to your responses. As the researcher, I will have access to your responses but not your name or other personally identifiable information about you. This process ensures that no one will have access to your name, your quantitative data, and your responses. **A link to the survey and your survey code is located in the upper-right corner of this letter.**

There are no anticipated risks or benefits to participating in this study. Since the research is conducted electronically, you will be able to participate from anywhere you choose. There is a one month window in which to complete the online questionnaire in order for your input to be included in the study. The questionnaire should take approximately 20-30 minutes to complete. Upon completion of this study, you will have the opportunity to receive a copy of the published results.

If you have any questions about this study on high school reading instruction, please contact me at jason_wysong@knights.ucf.edu. My faculty advisor, Dr. Rosemarye Taylor, may be contacted by phone at (407) 823-1469 or by email at rosemarye.taylor@ucf.edu.

Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901.

By going to the survey link, you are consenting to participate in this study. You are free to withdraw your consent to participate at anytime without consequence. If you choose to withdraw your consent, please contact me using the provided email address.

Thank you for taking the time to complete this survey. Your time and effort are greatly appreciated.

Best Regards,

Jason Wysong, Principal Investigator
Doctoral Candidate, University of Central Florida

APPENDIX D
INFORMED CONSENT LETTER FOR ADMINISTRATORS

Go to https://www.surveymonkey.com/s/readinga

September 13, 2012

Dear School Administrator:

Thank you for taking the time to participate in this important study about instructional practices used by high school intensive reading teachers. The title of this research is *Deconstructing Differences in Effectiveness of Reading Teachers of Ninth Grade Non-Proficient Readers in One Florida School District*. You are among approximately 160 educators who have been invited to provide input for this research. My hope is that this study will contribute to our understanding of what can be done to improve support for teachers of high school reading.

Your participation in this study is entirely voluntary. Whether or not you take part is your choice. You may elect to participate now or at a later period or change your mind while in the process of participating in the study. There is no consequence for your decision to accept or decline participation in the study. You must be 18 years of age or older to take part in this research study.

This study involves the matching of quantitative data about student and teacher performance to your views about classroom teaching and reading instruction. This is an anonymous study, and your anonymity will be maintained through use of an alpha-numeric code that you will enter at the start of the survey. The code was assigned by an employee of your school district who will not have access to your responses. As the researcher, I will have access to your responses but not your name or other personally identifiable information about you. This process ensures that no one will have access to your name, your quantitative data, and your responses. **A link to the survey and your survey code is located in the upper-right corner of this letter.**

There are no anticipated risks or benefits to participating in this study. Since the research is conducted electronically, you will be able to participate from anywhere you choose. There is a one month window in which to complete the online questionnaire in order for your input to be included in the study. The questionnaire should take approximately 20-30 minutes to complete. Upon completion of this study, you will have the opportunity to receive a copy of the published results.

If you have any questions about this study on high school reading instruction, please contact me at jason_wysong@knights.ucf.edu. My faculty advisor, Dr. Rosemarye Taylor, may be contacted by phone at (407) 823-1469 or by email at rosemarye.taylor@ucf.edu.

Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901.

By going to the survey link, you are consenting to participate in this study. You are free to withdraw your consent to participate at anytime without consequence. If you choose to withdraw your consent, please contact me using the provided email address.

Thank you for taking the time to complete this survey. Your time and effort are greatly appreciated.

Best Regards,

Jason Wysong, Principal Investigator
Doctoral Candidate, University of Central Florida

APPENDIX E
INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Exempt Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Jason C. Wysong**

Date: **August 17, 2012**

Dear Researcher:

On 08/17/2012, the IRB approved the following activity as human participant research that is exempt from regulation:

Type of Review:	Exempt Determination
Project Title:	DECONSTRUCTING DIFFERENCES IN EFFECTIVENESS OF READING TEACHERS OF NINTH GRADE NON-PROFICIENT READERS IN ONE FLORIDA SCHOOL DISTRICT
Investigator:	Jason C. Wysong
IRB Number:	SBE-12-08591
Funding Agency:	
Grant Title:	
Research ID:	N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

IRB Coordinator

APPENDIX F
SURVEY RESPONSES FOR RESEARCH QUESTIONS 2, 3, & 4

The following tables present teacher participant responses to the survey items related to Research Questions 2, 3, and 4. Within each table, an abbreviated item stem is presented followed by the percentage of participants who responded to each possible answer. For all items in Tables 47, 48, 49, and 50, the choices were Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). For all items in Table 51, the choices were Daily (D), At least weekly (W), At least monthly (M), and Never (N). In the event one or more participant(s) chose not to respond to an item, that choice is reflected as Not Applicable (NA).

Table 47

Distribution of Teacher Responses to Survey Items—Research Question 2

	SA %	A %	D %	SD %
Students can improve in reading	70.7	24.4	2.4	2.4
Teacher knows how to improve students' reading	51.2	43.9	4.9	0.0
Motivation is a primary responsibility	73.2	26.8	0.0	0.0
Quality of teacher is most important variable	46.3	46.3	7.3	0.0
Factors external to school can't be overcome	48.8	43.9	7.3	0.0

Note. $n = 41$. SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree

Table 48

Distribution of Teacher Responses to Survey Items—Research Question 3

	SA %	A %	D %	SD %
Instructional planning is important	63.4	36.6	0.0	0.0
Classroom management is critical	82.9	17.1	0.0	0.0
Teacher is better because of collaboration	70.7	26.8	0.0	2.4
Reflection on teaching occurs daily	34.1	61.0	4.9	0.0

Note. $n = 41$. SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree

Table 49

Distribution of Teacher Responses to Survey Items—Research Question 4A

	SA %	A %	D %	SD %	NA %
Post and communicate learning goal	22.0	56.1	19.5	2.4	0.0
Assist students with setting their own goals	39.0	61.0	0.0	0.0	0.0
Teach students to self-monitor progress	46.3	53.7	0.0	0.0	0.0
Establish and maintain classroom routines	63.4	34.1	0.0	0.0	2.4
Chunking content	70.7	24.4	2.4	0.0	2.4
Similarities and differences	41.5	56.1	0.0	0.0	2.4
Leading students through guided practice	70.7	29.3	0.0	0.0	0.0
Efficient use of learning time	73.2	26.8	0.0	0.0	0.0
Cooperative learning activities	48.8	43.9	4.9	2.4	0.0
Visual aids/graphic organizers	73.2	24.4	2.4	0.0	0.0
Checking for understanding	80.5	17.1	0.0	0.0	2.4
Providing daily homework	7.3	31.7	48.8	9.8	2.4

Note. $n = 41$. SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, NA = did not answer.

Table 50

Distribution of Teacher Responses to Survey Items—Research Question 4B

	SA %	A %	D %	SD %	NA %
Sustained silent reading	29.3	58.5	7.3	2.4	2.4
Student reading one-on-one with teacher	24.4	68.3	4.9	0.0	2.4
Paired/partner student readings	29.3	58.5	4.9	4.9	2.4
Choral readings	9.8	43.9	39.0	4.9	2.4
Round robin reading	12.2	51.2	26.8	7.3	2.4
Classroom library with diverse offerings	58.5	39.0	2.4	0.0	0.0
Word wall for vocabulary	26.8	63.4	7.3	0.0	2.4
Hot and cold readings	9.8	39.0	17.1	0.0	34.1
Text coding/annotating	51.2	36.6	9.8	0.0	2.4
Question-Answer-Relationship (QAR)	36.6	53.7	7.3	0.0	2.4

Note. *n* = 41. SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, NA = did not answer.

Table 51

Distribution of Teacher Responses to Survey Items—Research Question 4C

	D %	W %	M %	N %	NA %
Post and communicate learning goal	63.4	22.0	12.2	0.0	2.4
Assist students with setting their own goals	9.8	41.5	46.3	2.4	0.0
Teach students to self-monitor progress	29.3	41.5	26.8	2.4	0.0
Establish and maintain classroom routines	92.7	4.9	0.0	0.0	2.4
Chunking content	73.2	24.4	0.0	2.4	0.0
Similarities and differences	46.3	41.5	7.3	2.4	2.4
Leading students through guided practice	70.7	26.8	2.4	0.0	0.0
Efficient use of learning time	90.2	0.0	9.8	0.0	0.0
Cooperative learning activities	34.1	56.1	9.8	0.0	0.0
Visual aids/graphic organizers	48.8	43.9	7.3	0.0	0.0
Checking for understanding	95.1	0.0	2.4	0.0	2.4
Providing daily homework	19.5	36.6	7.3	36.6	0.0

Note. $n = 41$. *D* = daily, W = at least weekly, M = at least monthly, N = never, NA = did not answer.

Table 52

Distribution of Teacher Responses to Survey Items—Research Question 4D

	D %	W %	M %	N %	NA %
Sustained silent reading	31.7	46.3	7.3	9.8	4.8
Student reading one-on-one with teacher	4.9	31.7	39.0	17.1	7.3
Paired/partner student readings	9.8	46.3	34.1	9.8	0.0
Choral readings	2.4	22.0	19.5	48.8	7.3
Round robin reading	4.9	31.7	22.0	36.6	0.0
Classroom library with diverse offerings	51.2	26.8	19.5	2.4	0.0
Word wall for vocabulary	26.8	31.7	24.4	17.1	0.0
Hot and cold readings	2.4	24.4	22.0	17.1	34.1
Text coding/annotating	41.5	26.8	26.8	0.0	4.9
Question-Answer-Relationship (QAR)	22.0	46.3	29.3	0.0	2.4

Note. $n = 41$. *D* = daily, W = at least weekly, M = at least monthly, N = never, NA = did not answer.

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