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INSTRUCTIONAL PRACTICES IMPACTING STRUGGLING EIGHTH GRADERS'
READING ACHIEVEMENT: A NON-EXPERIMENTAL QUANTITATIVE ANALYSIS

A dissertation submitted in partial fulfillment
of the requirements for the degree of

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of

THE SCHOOL OF EDUCATION

at

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New York

by

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ABSTRACT

INSTRUCTIONAL PRACTICES IMPACTING STRUGGLING EIGHTH GRADERS' READING ACHIEVEMENT: A NON-EXPERIMENTAL QUANTITATIVE ANALYSIS

Deon LaVigne-Jones

Despite ongoing efforts to reform schools, the longstanding racial/ethnic achievement gap still persists, particularly for boys of color; in many cases, the gap is widening, particularly for students transitioning from elementary to middle school. The focus of this study was to examine the impact of effective instructional practices for struggling eighth-grade readers, and how these practices can help bridge the achievement gap among students from diverse backgrounds. This study utilized correlational research methods to determine the relationship between teacher qualities and instructional practices and the reading achievement of struggling eighth-grade students. The study used national data from the 2013 NAEP Eighth Grade Reading Assessment, including test scores. The researcher focused on 80 variables from the teacher and student surveys from 170,600 public schools and 151,777 teachers. Factor analysis was used to create factors; then statistical linear regression models were created to determine whether a significant relationship existed between the variables and the overall sample and subpopulations. Three conclusions were made. First, there is a statistically significant relationship between teachers' professional and instructional training and student reading achievement at the middle school level. Second, a statistically significant relationship exists between a

teacher's classroom practices and eighth-grade reading achievement. Third, there is a statistically significant relationship between teacher qualities on student reading achievement for the independent variables of race/ethnicity, gender, and socioeconomic status.

DEDICATION

In loving memory of my husband,

Elrick Arthur Jones

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CHAPTER 1 INTRODUCTION

Despite time and efforts to reform schools, the achievement gap still exists between students from diverse demographic backgrounds, and in many cases, the gap is growing. The achievement gap refers to the discrepancy in academic performance between groups of students based on demographic characteristics. The gap is evident in student grades, test scores, course selection, dropout rates, college application rates, and college completion rates, to name a few. Researchers have cited race and class as strong predictors of student achievement, but levels of education and school funding also contribute to the gap.

Individuals whose achievement levels are affected by the achievement gap often have lower earnings as adults, poor health outcomes and shorter lifespans, and higher incarceration rates. Closing this gap is a public mandate and a focus of federal education accountability. Yet, despite numerous efforts to reduce the achievement gap, progress has been slow. The disruptions of the abrupt closing and reopening of schools due to the global COVID-19 pandemic exacerbated the achievement gap by restricting school access, often making progress nonexistent.

In response, the government and the public must continue to direct funding sources, appropriate programs, and educational policies aimed at closing the achievement gap to keep our society strong. School systems and their leadership must adopt practices to meet the needs of today's students. The role of the middle school teacher and what she does yields great influence on the students in her charge. Teachers must maintain rigor and teach at high levels with high expectations for quality work from students. The number of students who are English Language Learners (ELL) and the percentage of high-poverty schools increases; simultaneously, standardized scores continue to decrease. Therefore, we

must turn our focus towards improving teacher instruction and practice through a balanced curriculum based on literacy comprehension skills across content and subject areas.

Conceptual Framework

In the context of children and learning, some may argue that knowledge is personal and socially constructed, created out of one's need to make sense of the world around them. Constructivist theorists work to understand the active experience-based knowledge construction and how it is embedded in social contexts (i.e., the social construction of knowledge). It is from this point of view intervention and instruction are chosen with an eye to fit. The theoretical framework for this dissertation research project is grounded in constructivist theory. Specifically, it draws upon Bandura's (1977) Social Cognitive Theory and Vygotsky's (1978) Sociocultural Theory of Cognitive Development.

Bandura's (1977) and Vygotsky's (1978) views on social cognitive development lay the foundation for this study examining effective teacher practice and instruction as well as for the implications on enhancing reading achievements for at-risk middle school students. Bandura (1977) employs a social learning construct that emphasizes the importance of observing and modeling the behaviors, attitudes, and emotional reactions of others. Learning happens through effective modeling starting with attention, retention, reproduction, and motivation. Vygotsky (1978) provides a constructivist framework that guides the reader's thoughts on how learning takes place within a context and how transfer occurs when the learner is engaged in rich experiences. These theories are explored in depth below and used to understand the findings of this research study.

Bandura's (1977) Social Cognitive Theory sets the premise that learning occurs largely by doing and that we learn by observing, often without a goal or reinforcement.

Bandura reminds us that learning also occurs through the effective modeling of behaviors, attitudes, and emotional reactions of others. Factors such as our motivation, interest, incentives, perceived need, physical state, social pressures, and type of competing activities work as factors to determine whether we perform what we learn. Reinforcement, perceived or delayed, affects performance rather than learning.

A key premise of Social Cognitive Theory is that people desire “to control the events that affect their lives” and to view themselves as agents (Bandura, 1977, p.1). This sense of agency is consistent with actions, cognitive thought processes, and affective processes (Bandura, 2001). Thus, perceived self-efficacy and self-regulation become important aspects of a person’s life and behaviors. In learning situations, such as school classrooms, self-regulation requires the learner to make choices, which may vary and influence what and how students complete a task.

Bandura’s Social Cognitive Theory of self-regulation refers to an individual’s belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1977, 2001). The learning of skills is not enough; individuals must also develop confidence in the skills they are learning. For example, self-regulation and self-efficacy will determine whether a child believes she can accomplish a specific task using acquired skills and how the task will be completed. Struggling students are at-risk for greater academic, behavioral, and personal problems. Self-efficacy and self-regulation, key factors in academic and personal achievement, are often not recognized by teachers who increasingly must focus on high-stakes testing.

Vygotsky’s(1978) Theory of Cognitive Development creates the foundation for explicit instruction. Vygotsky believed that students should not be required to reinvent

knowledge that is readily available (Karpov & Haywood, 1998; Vygotsky, 1978). Thus, the development of cognitive function is a deliberate process requiring direct instructional teaching. Other educational theorists (e.g., Dewey and Piaget) believed in the use of student activity, social interaction, and authentic assessment to teach big concepts. Vygotsky's theories include five key points (Shunck, 2016, p. 313)

1. Social interactions are critical; knowledge is co-constructed between two or more people.
2. Self-regulation is developed through internalization (developing an internal representation) of actions and mental operations that occur in social interactions.
3. Human development occurs through the cultural transmission of tools (language, symbols).
4. Language is the most critical tool. Language develops from social speech to private speech, to covert (inner) speech.
5. The Zone of Proximal Development (ZPD) is the difference between what children can do on their own and what they can do with assistance from others.

Interactions with adults and peers in the ZPD promote cognitive development.

Vygotsky's Zone of Proximal Development (ZPD) is "the distance between the actual development level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peer" (Vygotsky, 1978, p. 86). The ZPD is often described as the gap between the learner's actual and potential development.

While supportive of the cooperative learning approach, Vygotsky believed that the teacher's role is to define, assist, and direct the learning process (Karpov & Haywood, 1998; Vygotsky, 1978). Vygotsky believed that scaffolding must occur in an effective learning environment. Teacher practices demonstrated in a scaffolded learning environment include the teacher guiding the learner through the learning process via modeling, demonstrations, and prompts so that the learners can perform independently. Reciprocal teaching, an effective instructional practice in which there is an interactive dialogue between the teacher and a small group of students, combines social interaction and scaffolding as students develop skills.

Research on self-regulation, which began as an outgrowth of psychological investigations into the self-control of adults and children, was expanded to address academic learning and achievement (Zimmerman & Schunk, 2001). Self-regulated learning is closely linked to self-control, or the regulation of self in thoughts, deeds, and actions. Self-regulation includes the behaviors that individuals regulate, which are driven by goal attainment.

Other applications of Vygotsky's (1978) theories include peer collaboration, where peers work cooperatively on an activity, and apprenticeships, where novices work closely with experts in work-related activities. Apprenticeships are used by schools today, where students with high levels of ability work with peers, where student teachers work with cooperating teachers or new teachers are paired with mentors or experienced teachers. Both Bandura (1977) and Vygotsky (1978) modeled effective strategies for effective and quality pedagogy. Constructivism would maintain that learners can form and construct meaning around knowledge and skills. Vygotsky would argue that a person's cultural environment

has a great influence on learning. Yet, the goal for students who have been molded and influenced by their environment is to create their own identity, which is added motivation tied to self-regulation (Pintrich, 2003; Wolters, 2003).

This study explores a central question, “What is the impact of effective strategic instruction and practices on at-risk, eighth-grade general education students’ growth and achievement in reading comprehension?” Throughout this study, teachers and administrators were provided with research-based instructional literacy interventions targeted at struggling middle school students in reading. There have been longstanding mandates to improve public education; this is supported by efforts to improve the reading skills of middle school students. According to the National Literacy Institute (2022), 21% of the adult population were labeled functionally illiterate due to their inability to locate textual information or make low-level inferences from a text; 54% have literacy levels below a sixth grade. Focusing on improving reading and literacy skills at the middle school level would lead to improved outcomes for all students, schools, the nation, and ultimately, the global world.

Problem Statement

Schools are intended to provide the opportunity for students to develop knowledge and lifelong skills which promote academic and personal success. To this end, we must align our resources to meet students where they are to bridge the achievement gaps. Despite time and efforts to reform schools, the achievement gap exists between students of various demographic backgrounds, and in many cases has widened attributable to the pandemic. As the elementary school student experiences change while transitioning to middle school,

with that change comes a decrease in student achievement and engagement which often continued into the high school transition experience.

Since 1969, the National Assessment of Educational Progress (NAEP) has been the national indicator of what American students know and can do in major academic subjects, including reading in English (NAEP, 2022). NAEP reading assessments are scheduled for students in fourth, eighth, and twelfth grade every two years. Since the passage of No Child Left Behind Act of 2001 (NCLB) and the reauthorization of the Every Student Succeeds Act (ESSA) of 2015, schools have used “scientifically based research” as the foundation for educational programs. Under ESSA, the aim has been ensuring that public schools provide students with a quality education; schools have shifted to “evidence-based interventions” as the new foundation for their educational programs. This shift was made to increase the impact of educational costs by ensuring that interventions are proven to provide the desired outcomes; thus, improving student achievement.

The NAEP Reading Assessment (NAEP, 2013) scores for eighth-grade student achievement showed that just 4% of students scored as advanced and 31% proficient; two-thirds of students scored at the basic level (42%) or below the basic level (23%). To be clear, most of the eighth-grade population performed at 65% below the proficiency level, representing struggling readers. Similar low proficiency was reported for the 2011 assessment (68%) and the 2015 assessment (66%) level. Incontrovertibly across the nation, many middle school students are struggling with their reading skills.

In response, schools and their leadership must adopt early, proactive practices and approaches to enable teachers to meet the needs of today’s students in the classroom. These deficits are not solely caused by schools. Parental involvement yields a significant impact

on student success; data analysis and data-driven decision-making continue to be necessary to assess the climate and culture of the school. Other factors such as racism, poverty, the larger social climate, and teacher quality contribute to school-related factors; of these factors, the most influential is quality teaching (Hattie, 2012).

Teaching is at the core of what takes place at school and teacher practice is significant to student outcomes. Due to the nature of teaching and the ways students learn, all teachers do not experience the same results as all of their students. Teachers come from a variety of backgrounds and preparation programs; they bring different experiences and content knowledge. And they possess a variety of skills needed to ensure student success. Over the past few years, instruction has mostly been conducted remotely due to the pandemic; with the use of technology, additional factors influencing today's teaching practices are emerging.

As a nation, America has become a dominant influence in the global community, requiring a skilled and trained workforce; as such, we must be willing to provide the best educational experiences for our youth, who will become the leaders of tomorrow. Hands down, the most influential person in this process is the classroom teacher. Understandably, intentional quality teaching matters.

Every teacher has a deep and long-lasting influence on their students. It is the teacher who affects how and what students learn, how much they will learn, and who will monitor how students interact with themselves, their peers, and the world around them. Given that degree of influence, the need is critical for effective teachers who understand what is necessary to promote positive results for all students, particularly those who are at

risk. Effective teachers cultivate students' minds in positive ways, framing mindsets and attitudes toward school, learning, achievement, and the future.

Given the variety of teacher education programs and changing student demographics, many teachers are not adequately prepared for the reality of a live classroom with at-risk and high-ability students. An investigation of professional development for in-service teachers is a worthwhile endeavor. For this reason, professional development and the professional training of middle school teachers are explored here as instructional practice factors impacting student reading achievement.

Parental Involvement and Engagement

Parental involvement can take a wide variety of forms, including but not limited to communication between family and school, supporting learning activities at home, and involvement in school activities (Schueler et al., 2017). One form of parent engagement is the involvement of parents or guardians within the home setting, such as reading with their child, talking about school, and working with the child on academic skills (Berthelsen & Walker, 2008). Children learn more when their home and school environments support each other in stable, predictable ways (Crosnoe, 2012).

The educational community promotes parental or family involvement as an essential tool in ensuring academic success. Establishing partnerships between schools and families remains a critical and vital function for supporting student growth. Involving parents and assisting parents to be active in their child's school communities is both an objective and an obstacle for teachers, administrators, schools, and policymakers. Many teachers also lack the basic reading skills and appropriate training methods necessary for parental involvement. Parental involvement and data analysis continue to be necessary to

assess the climate and culture of schools, as well as inform all stakeholders as to the quality of instruction. There is a significant lack of research in this area of parental engagement in the context of reading achievement, yet this is required as schools are mandated to adhere to constantly changing reforms designed to increase reading proficiency.

Statement of Purpose

The purpose of this quantitative study was to determine effective teacher practices for increasing the reading comprehension abilities of at-risk eighth-grade students and to explore effective teaching skills and behaviors which motivate and improve student performance as measured by state reading assessments.

This research sought to identify common, effective, evidence-based teaching practices and strategies for middle school classroom teachers that could positively impact student achievement for struggling readers. The focus was on middle school teachers because they are tasked with focusing on accessing the foundational skills of the at-risk student and improving students' reading abilities and performance. Middle school teachers need to be experts in their discipline including having insights into how to meet the needs of all students in their charge. The eighth grade reading datasets from NAEP (2013) will be utilized to conduct a quantitative statistical analysis focusing on factors such as race, poverty, and socioeconomic status as they impact student achievement. The results and analysis of the literature review suggest that effective teaching practices improve achievement for struggling middle school readers and require a variety of strategic reading interventions across the content areas.

Research Questions

This research focuses on the relationships between effective teaching practices and strategies, student gender, student race and ethnicity, student reading proficiency, and student family socio-economic status. This study was framed by three research questions:

1. What is the relationship between the teachers' professional training and student reading achievement at the middle school level?
2. Is there a relationship between teacher classroom practice and eighth-grade students' reading achievement?
3. Is there a significant relationship between teacher qualities and student reading achievement for any of the independent variables; race/ethnicity, gender, and socioeconomic status?

Overview of the Methodology

This research is a non-experimental quantitative study. Correlational research is a non-experimental research method where the researcher measures two variables and studies the statistical relationship (i.e., the correlation between variables) to determine whether the variables are related. The researcher ultimately assesses that relationship without influence from any peripheral variable. The most prominent feature of correlational research is that two or more variables are measured but neither is manipulated.

A correlational study has direction and can be either positive or negative. It can also show differences in the degree or strength of the relationship. A correlational study does not demonstrate cause and effect; the language for interpretation is suggestive and it measures the strength of the linear regression. Results do allow for a determination of

whether the correlation is significant from zero ($\alpha \leq .05$). The results from this analysis will aid in determining the strength of the relationship, which lends itself to predictability.

A quantitative correlational research study was employed for a population composed of middle school teachers and eighth-grade students using national data from the 2013 NAEP Reading Assessment datasets. The NAEP dataset was chosen because it provides a common method to measure students across the country, which is an important factor as there is not any consistent standardized test used by the states. The use of NAEP data provided this researcher with access to many different teacher responses, data from various academic subject areas, and teacher and student survey responses. The dataset also provided information regarding student demographics for analysis and comparison between and within the states (NCES, 2019a, 2019b).

The researcher developed and discussed factors using variables (i.e., parents, students, and teachers) collected from the NAEP (2013). Factors such as socio-economic status (SES), race/ethnicity, gender, and parental involvement were explored. Statistical linear regression models were created to determine whether a significant relationship existed between the variables and the overall sample and subpopulations.

Rationale and Significance

The importance of content-area reading instruction in the middle school classroom continues to be concerning to educators for the past 50 years (Conley & Hinchman, 2004). Research shows that content area reading instruction and strategies in middle and secondary school classrooms significantly increases student achievement across different measures, including standardized tests (Alfassi, 2004; Greenleaf et al., 200; Langer, 2001;

Rosenshine & Meister, 1994). This lack of reading instruction has been attributed by some to be a result of the teacher's instructional decisions (Blintz, 1997; O'Brien et al., 1995).

In middle school, teachers are responsible for imparting knowledge in their specific subject area and often do not provide, nor are they able to provide, the reading instruction necessary to address the needs of the students before them. One major concern for the content area teacher is the belief that students should come to them already reading and that the job of teaching reading is situated with the elementary school and English content teachers (Blintz, 1997; Donahue, 2000; Hargrove, 1973). Teachers often believe that their primary responsibility is to deliver content, and they do not perceive content area reading instruction to be a method of teaching that content. (Blintz, 1997; Hargrove, 1973).

Furthermore, research has established that the attitude of the classroom teacher toward content area literacy is an important factor in reading achievement and the reading practices of secondary students. Teacher perceptions of content area reading instruction influences the success of both students in the class and teacher training programs (Blintz, 1997). At the middle school level, teachers should continue to assess, diagnose, remediate, and strategically support the struggling reader. Theorists and researchers agree that strategic reading and the teaching of those strategies and skills must take place in secondary school (Biancarosa & Snow, 2004; Billymeyer & Barton, 2002; Conley & Hinchman, 2004). Research supports the idea that strategic instruction of reading significantly improves student achievement (Rosenshine & Meister, 1994).

Results on the 2022 state reading assessments for fourth and eighth-grade students were recently released, and the results were not where administrators wanted them to be, with each grade yielding lower scores compared to the previous year. Across the nation,

eighth-grade student reading scores were lower by three points compared to 2019 scores, representing a staggering 71% of the eighth-grade students' population who performed below the proficient level. The results have been used as one measure for gauging student achievement; other indicators are used to create individual and schoolwide plans to target achievement gaps.

Providing quality education for all children begins with identifying effective teachers and their teaching practices. While numerous variables contribute to the definition of teacher effectiveness, this study aimed to help to identify teaching practices that contribute to reading success or failure in middle school. Classrooms across the country are composed of students of diverse academic and economic backgrounds. Therefore, a secondary purpose of this study was to examine the relationships between reading, gender, race, ethnicity, and socio-economic status on eighth-grade student achievement. In conducting this research, teachers, professional development providers, and administrators would gain information on how to intentionally design teacher preparation programs, coaching, remediation programs, and instructional designs. This knowledge was anticipated to help guide administrators, teachers, curriculum writers, and professional developers on how to use and revise general principles for crafting effective teaching practices for diverse learners and providing engaging work for students.

With high-stake accountability based on students' ability to read, analyze, and answer questions correctly, teachers and schools can no longer pass the responsibility of content area reading instruction onto the reading specialists, intervention specialists, or English teachers. Middle school teachers must develop strategic reading skills for students and focus on their instruction. Furthermore, with the exponential growth in the use of the

internet and other electronic and digital resources, we are moving away from students needing to internalize vast amounts of information. We are moving towards students who require the skills and abilities to gather information from an ever-expanding array of resources. Students must connect and integrate this new information with their prior knowledge; they must process the information into the correct context and format necessary to complete increasingly challenging tasks. Should we fail to teach students how to effectively read now, we face becoming a nation at risk due to our inability to yield a future populated by fully literate adults.

The National Institutes of Health state that 95% of poor readers can be brought up to grade level if they receive effective help early (Hall, 2009). NIH researchers add that it is possible to help an older child with reading; however, it requires much more intensive help. While early interventions are critical, middle school is not too late for effective teachers to help students improve their reading proficiency.

Thorough screening and assessment activities that focus on phonemic awareness skills and effective intensive reading instruction in small groups have been shown to improve student achievement. Middle school teachers can and should deliver instruction in a specific content area. Training all teachers on strategic reading instruction, diagnosing reading difficulties, and reading remediation across the content areas is key and beneficial.

This study can be used to inform culturally responsive middle school curriculum writers and guide teachers to produce culturally responsive lessons. The goal is to improve students' reading achievement and provide teachers with the explicit and strategic skills necessary to enhance the reading achievements of our future global citizens. As global

citizens, they must be ready to take on the challenges and opportunities brought about by globalization and enhanced technology (Zhao, 2011).

Role of the Researcher

The primary role of this researcher was to conduct research through experimental studies, literature reviews, and quantitative studies. The researcher explored the relationships between teachers' professional/instructional practices and student achievement. A theoretical framework was provided to examine the significance of the findings ethically in accordance with St. John's University IRB standards.

Researcher Assumptions

The researcher's background included experiences as a teacher, a literacy coach, a testing coordinator, and a school administrator. She is now retired. Her goal was to develop generalizable research that contributes to educational theories and classroom practices. Honesty and truthful responses were provided throughout the research study.

Definition of Key Terms

To promote a common conceptual understanding, operational definitions of key terms used in this research project are provided.

Achievement Gap

When one group of students outperforms another group and the difference in average scores for the two groups is statistically significant (Nations Report Card, 2019).

At-Risk Youth

An at-risk youth is a child who is less likely to transition successfully into adulthood.

Care/Caring

Caring is defined by Noddings (1988) as feeling concerned for another person and being receptive to the needs of others. Noddings discuss caring in the context of a teacher's responsibility, believing that the teacher's responsibility is to tend to the needs of students.

Ethnicity

Being of Asian, Pacific Islander, Black, Hispanic, or American Indian heritage or descent.

Gender

For this study, gender refers to male and female students and adults.

Motivation

A topic intimately linked with learning and student engagement, motivation is the process of instigating and sustaining goal-directed behaviors (Schunk et al., 2014).

Parental Involvement

Parental involvement is defined as having an awareness of and involvement in schoolwork, an understanding of the interaction between parenting skills and student success in schooling, and a commitment to consistent communication with educators about student progress (Pate & Andrews, 2006).

Perceptions

Defined by Bernhardt (2010) as "observation and opinion," or more specifically "what the students think about the learning environment."

Performance

The extent to which a student, teacher, or institution has achieved their short or long-term educational goals. Cumulative GPA and completion of educational benchmarks is common measures.

Race/Ethnicity

Information used by NCES is obtained from school records and reported in the following six mutually exclusive categories: White, Black, Hispanic, Asian/Pacific Islanders, American Indian/Alaska Native, or unclassified. These categories comply with the 2009 standards of the U.S. Office of Management and Budget for collecting and reporting data on race/ethnicity (NCES, 2020).

Rate

How effectively or how quickly students' learning achievement improves.

Reading

“Reading is the process of constructing meaning from written text. It is a complex skill requiring the coordination of several interrelated sources of information” (Anderson et al., 1985, p. 6). Reading is an active and complex process that involves: the understanding of the written text, developing and interpreting meaning, and using meaning as appropriate to the type of text, purpose, and situation. This definition applies to the assessment of reading achievement on NAEP and is not intended to be an inclusive definition of reading or reading instruction.

Self-Efficacy

People believe in their capabilities to exercise control over their functioning and over events that affect their lives.

Self-Regulation

The process whereby individuals activate and sustain behaviors, cognitions, and effects which are systematically oriented toward the attainment of goals (Zimmerman & Schunk, 2003).

Socioeconomic Status (SES)

Identified by a student's eligibility for free/reduced-price school lunch in the National School Lunch Program. NAEP has used this measure as an indicator of poverty since 1966 (NCES, 2020).

Struggling Student

For the purposes of this study, a struggling student is identified as a student who has to work harder than others to accomplish the same task or learn the same thing. The child may be a year or more behind grade level in one area or in all subjects. According to NAEP, struggling readers are defined as low achievers, students with unidentified reading difficulties, dyslexia, and/or students with reading, learning, or speech/language disabilities. These students perform Below Basic NAEP levels. (NAEP, 2022).

Teacher Practice

The methods and means by which a classroom teacher delivers instruction.

Teacher Questionnaires

Teacher questionnaires are the survey method used by NAEP to collect supplemental data from teachers. The first part of the survey covers the background and general training, including years of teaching experience, certifications, degrees, major and minor fields of study, educational coursework in specific subject areas, amounts of in-service training, the extent of control over instruction issues, and resource availability.

Other parts cover training in the subject area, classroom instructional information, and teacher exposure to issues related to the subject and the teaching of the subject. Teacher questionnaires are collected for teachers in Grades 4 and Grade 8, aligned with the testing years for students (NCES, 2017).

Organization of the Study

Chapter 1 introduces the study in broad terms, describing key components of the research. Chapter 2 is a detailed research literature review that provides the basis for the research design, parameters, and interpretation in the following areas: literacy theories and practices, effective teaching practices, and professional development. Chapter 3 presents the research methodology including a detailed description of the quantitative research data used and a rationale for utilizing a quantitative research design. Chapter 4 presents the findings from this study. Analysis of data obtained in the research included descriptive statistics, correlations, and regression analysis. Finally, Chapter 5 provides a summary of the results and discusses the findings in the context of the existing research. It makes recommendations for practice and future research.

CHAPTER 2 LITERATURE REVIEW

This study sought to identify effective middle school teaching strategies which impact at-risk students' academic achievement and performance in reading. The identification of effective practices was anticipated to add to the existing body of research available for teacher preparation programs, school administrators, curriculum designers, teachers, parents, and educational legislative bodies.

For many students, eighth grade is a transitional stage from middle school to high school. It is at that stage when students' reading abilities shift from “learning to read” to “reading to learn.” This is the age when a student develops more sophisticated reading skills that allow them to analyze literature and master content across the subject areas. Reading becomes a powerful tool to find information, make sense of complex material, and find enjoyment in literature and popular media. Middle-school instruction, therefore, requires a focus on refining and strengthening existing skills; the components of these skills include strategic reading, comprehension, vocabulary, and speed.

An Increasing Focus on Reading Achievement

In 1983, “A Nation at Risk” was released by the National Council of Education; the report called for drastic school reform. In 2002, with just 32% of middle students reading at a proficient level, the No Child Left Behind Act (NCLB) was passed, requiring states to test students in reading and math as well as to provide federal relief to the states. One major component of NCLB was to ensure that states employed only “highly qualified” teachers by the end of the 2005-2006 school year (Goldhaber & Dan-Anthony, 2003).

In 2009, the Obama Administration introduced the American Recovery and Reinvestment Act, which laid the foundation for innovative strategies to advance school

and student outcomes. Under the Obama Administration, the Elementary & Secondary Education Act (ESEA) was reauthorized in 2015 as the Every Student Succeeds Act (ESSA). ESSA is the nation's education law and its commitment to ensuring schools provide a high-quality education to all students and is measured by annual state assessments (U.S. Department of Education, 2017). The act shifted educational decision-making from the federal level down to the state level, yet still required standardized testing. ESSA provided additional state aid for literacy programs and disadvantaged schools as well as additional resources for providing solutions for low-performing schools, students, and student subgroups.

Mandated by the Federal Government and tied to state funding, Common Core Standards were introduced by the states, and have been rolled out, revised, and re-introduced in a continual effort to meet the educational needs of our youth, most recently as Next Generation Standards. However, demonstrating mastery of these state-mandated assessments will not sufficiently develop the skills necessary for a global workforce (Zhao, 2011). Educators express increasing concern over the amount of instruction time that is dedicated to preparation for testing rather than encouraging curiosity, creativity, communication, and critical thinking skills (Wagner, 2010; Hargreaves & Shirley, 2012). The process of teaching and learning in a global society moves beyond the traditional 3 Rs of education (i.e., reading, writing, and arithmetic) and now includes creativity, innovation, and personalized learning experiences designed to engage all students. Teachers need to utilize effective teacher practices not only to impact student reading performance and achievement but to prepare our students to compete in the global workforce of the future through creative and engaging lessons.

Despite all this attention, student achievement in reading remains stubbornly low.

Table 1 below, shows 2013 reading proficiency data for students by race. There are wide disparities in the average scores for students nationally on the 2013 NAEP assessment and scoring at Below Basic: White, 14%; Asian /Pacific Islands, 14%; Hispanic, 22%; American Indian /Native Alaskan, 38%; and Black, 39%. Black, Hispanic, and American Indian student populations have grown significantly as their scores have dropped.

Table 1

Student Reading Performance by Race (2013)

Race % of Population	Proficiency Rating*					Mean Score*
	Below	At Above Basic	or	At Above Proficient	or Advanced	
White	14%	86%		46%	6%	<i>M</i> = 276
1998: 70%	15%	85%		44%	5%	<i>M</i> = 276
2013: 55%						
Black	39%	61%		17%	1%	<i>M</i> = 250
1998: 15%	40%	60%		16%	1%	<i>M</i> = 250
2013: 15%						
Hispanic	32%	68%		22%	1%	<i>M</i> = 250
1998: 11%	33%	67%		21%	1%	<i>M</i> = 250
2013: 22%						
Asian/Pacific	14%	86%		52%	10%	<i>M</i> = 280
Islander	15%	85%		50%	9%	<i>M</i> = 279
1998: 3%						
2013: 5%						
Am. Ind./Alaska Nat.	38%	62%		19%	1%	<i>M</i> = 251
1998: 2%	37%	63%		19%	1%	<i>M</i> = 252
2013: 1%						

*Upper scores are for all schools; lower scores are for public schools. (NAEP, 2013),

Furthermore, the socio-economic status of families can function as an indicator of the reading achievement of students. The achievement gap between students from low-income, middle-class, and wealthy environments has persisted and is well-documented in American education. Buckingham et al. (2013) state, “The relationship between socio-

economic disadvantage and poor reading ability is one of the most enduring problems in education” (p. 429). Effective teacher qualities may vary based on race, economic level, teacher support, and the academic achievement of students, which is a focus for additional study.

Reading and 21st-Century Learning

The United States has long been an established leader in our global community. Spurred by technology, education bridges communities and businesses across oceans and around the world. Today’s students will be the global citizens of tomorrow. As our students and America continue to struggle with education reform, exacerbated by the global pandemic. Once reliant on books, paper, and in-person learning to prepare our students to be 21st-century learners, with the increase of technology we must realign our instructional strategies accordingly. Including fully incorporating remote learning.

Research from the National Assessment of Education Progress (NAEP) recognizes that reading is a critical 21st-century skill, yet in 2013 only 32% of public school students in fourth and eighth grades performed at or above average proficiency in reading. NAEP (2019) reported that for Grade 8, 31 states reported an overall score decrease in reading; 29% saw even drops between male and female students, 31% saw higher drops for female students, and 39% saw higher drops for male students. This report sheds light on how America as a global leader counts 41.1 million adults who are functionally illiterate, 21% of our adult population.

Research shows that children who read proficiently by the end of third grade are more likely to graduate from high school and less likely to enroll in remedial college courses; they are more likely to be economically stable and lead successful lives.

Elementary students who are not proficient at grade-level reading bring those deficits with them as they transition to middle school. Fiester (2010) argues that if we don't get more children on track as proficient readers, the United States will lose a growing and essential proportion of its human capital to poverty, and the price will not be paid only by individual children and families but by the entire country (p. 7).

According to the 2013 assessment data of eighth-grade students, students across the nation performed at 28% proficiency and 28% math proficiency, scoring an average score of 263/500 (NAEP, 2013). This suggests an urgent need to understand the professional and instructional practices of teachers and learning conditions. The No-Child Left Behind Act of 2000, with its sweeping educational reform, sought to establish the identification and placement of a highly qualified teacher in every classroom. New federal and state standards attempt to create a common language through Common Core instructional mandates, and yet the educational achievement of many students is below the national average.

There is a sense of urgency in maximizing effective teaching practices and instructional strategies to improve middle school students' performance. Legislative reforms such as NCLB, ESSA, and Race to the Top have all attempted to improve literacy in the United States. Currently guided by ESSA, America's shared purpose is to ensure that all students are prepared for success in college and careers. ESSA's major tenet is to advance equity by upholding critical protections for America's disadvantaged and high-need students. Today, eight years after introducing ESSA, school systems and states across the country continue to struggle in meeting the government mandates and initiatives to improve student reading achievement overall.

Differentiated Instruction

The increased diversity in the nation's classrooms has directed much attention to the challenges associated with educating a multicultural, multilingual student population (Darling-Hammond et al., 2005; Martin-Jones & Jones, 2001). Some researchers believe that meeting the needs of diverse students will be even more challenging for middle school teachers compared to other teachers because middle school teachers must also help students deal with the unique developmental changes that occur during this time (Smith et al., 2005; McLeod, 2000). As young adolescents confront a host of transitions associated with puberty, including dramatic physical, social-emotional, and cognitive changes, they also transform relationships with parents, encounter more emotionally intense interactions with peers, and struggle with personal identity issues (Steinberg et al., 1981).

Differentiating instruction through the integration of explicit instructional techniques has been proven to be successful for struggling readers as well as gifted and talented students (Reis et al., 2011). Student mastery of basic reading skills developed during the elementary and middle school years set the foundation for students to analyze texts from multiple content areas to construct knowledge. Theorists like Allington (2011) and Moats (2001) promote effective reading interventions, sharing the belief that older students who struggle with reading can be brought to grade level if sufficient time is allocated to the foundational gaps, they missed in their early school years. Research also suggests that during the middle school years reading instruction should continue to develop reading proficiency (Allington, 2011).

In addition, young students from varying cultural and racial backgrounds tend to experience cultural conflict at home and pressure from racially and culturally different peers (Banks, 2001; Coll et al., 1996; Smetana & Gaines, 1999). Middle school teachers, therefore, must become educated about and skilled in using effective pedagogy that is sensitive and responsive to the development and educational needs of young culturally diverse adolescents as they continue to teach reading skills across the content areas.

New York “Keeping Pace”

The most recently revised Federal standards for reading is the Next Generation Learning Standards, which New York schools have been unpacking since 2017. Due to the pandemic, schools were slow in providing professional development for teachers in efforts to bring clarity to these new standards. The new standards were built from Common Core Learning Standards through collaborative revisions, additions, and selections aimed at providing more rigor to each standard. The revisions were deemed necessary for New York to keep pace:

Today’s children must become tomorrow’s lifelong learners, able to marshal reading, writing, and thinking skills. Today’s children must also become adults who can communicate and navigate an increasingly interconnected society—one in which literacy skills are routinely called upon. In other words, all students in NYS classrooms must develop advanced literacies. Advanced literacies denote a set of skills and competencies that enable communication, spoken and written, in increasingly diverse ways and with increasingly diverse audiences. This requires writing with precision, reading with understanding, and speaking in ways that communicate thinking clearly. (New York State Education Department, 2017).

The New York State Education Department has redefined what counts as “literacy,” and it has changed dramatically over the last few decades. To be academically and personally successful in today’s literacy- and knowledge-based society and economy, every student needs to develop advanced literacies. New York State Education Department Standard 2 denotes skills and competencies that enable communication, spoken and written, in increasingly diverse ways and with increasingly diverse audiences. Advanced literacies also promote the understanding and use of texts for a variety of purposes. Likewise, enable participation in academic, civic, and professional communities where knowledge is shared and generated.

Teachers are responsible for providing standards-based lessons, per the instructional model expected at each school. This may be overwhelming for veteran teachers and more stressful for new teachers just entering the profession. New teachers enter the job at various entry levels; teacher preparation programs differ, and teachers bring different sets of experiences. Many teachers are career changers who must learn these constantly changing standards and keep abreast of ever-changing instructional mandates, especially given that their performance is rated in part by relation to the success of their students.

Under ESSA, each state is responsible for creating and overseeing the Framework for its teachers. At the time of this research study, New York State implemented the Framework for Teaching (Danielson, 2022) as the measure used to observe, evaluate, and rate teacher performance and practice. The goal of the Framework is to raise student achievement and bring a standard measuring tool to teacher practice. This evaluation practice incorporates multiple evaluation measures and provides specific feedback in a

timely fashion for improvement, which can be aligned with professional development. Based on teacher observation and the Danielson Framework, ratings can be used to inform selection, retention, tenure, and disciplinary actions or decisions.

Theoretical Framework

Bandura's (1977) and Vygotsky's (1978) theories on social cognitive development form the foundation for this study examining effective middle school teacher practice and instruction, as well as the implications for student reading achievement. Bandura (1977) reminds us that learning occurs through effective modeling and motivation. Vygotsky (1978) guides the reader in this practice through his research on how learning takes place within a context and how transfer occurs when the learner is engaged in rich experiences.

Bandura's (1977) Social Cognitive Theory sets the premise that learning occurs largely by doing and that we learn by observing, often with a goal or reinforcement. Bandura reminds us that learning also occurs through effective modeling and motivation. Factors such as our motivation, interest, incentives, perceived needs, physical state, social pressures, and type of competing activity act as factors to determine whether we perform what we learn. Reinforcement, perceived or delayed, affects performance more than learning.

A key premise of Social Cognitive Theory is that people desire "to control the events that affect their lives" and to view themselves as agents (Bandura 1977). This sense of agency is consistent with actions, cognitive thought processes, and affective processes (Bandura, 2001). Thus, perceived self-efficacy and self-regulation become important aspects of a person's life and behaviors. In learning situations, such as the classroom, self-

regulation requires the learner to make choices, which may vary based on what and how one chooses to complete a task.

Bandura (1977) reminds us that the learning of skills is not enough; individuals must also develop confidence in the skills they are learning. Self-efficacy and self-regulation are additional factors in the academic and personal achievements of students that should be considered by teachers during instructional practices.

Vygotsky's (1978) Theory of Cognitive Development sets the premise for explicit instruction, a deliberate process requiring direct instructional teaching. Vygotsky believed that the teacher's role is to define, assist, and direct the learning process (Karpov & Haywood, 1998; Vygotsky, 1978). Vygotsky also believed that scaffolding must occur in an effective learning environment; scaffolding is a method in which teachers offer a particular type of support to students as they are introduced to and practice to develop a new concept or skill. Teacher practices demonstrated in a scaffolded learning environment include the teacher guiding the learner through the learning by modeling the skill, step-by-step demonstrations, and providing prompts and examples.

Adolescent Development

This study is also framed by theory around adolescent development. Recently revised Common Core State Standards emphasized teaching comprehension with content areas. Newly unpacked are the Next Generation Common Core Standards of 2019, in which teachers are encouraged to teach English comprehension and literacy skills within each content area (Haager & Vaughn, 2013). As students move beyond their primary years, explicit instruction to strengthen reading comprehension skills is frequently overlooked (Schiller et al., 2012). Schiller et al. (2012) further note that there is little research to support

struggling adolescent students in the United States entering intermediate and middle school years. When students progress to higher grades, their academic success across the disciplines reflects their ability to develop strong and effective reading comprehension strategies. When students are identified as at-risk or low performers, they experience higher dropout rates, and end up in lower-paying jobs (Grimm, 2008).

Eighth grade is a benchmark transitional stage from middle school to high school for most students, socially, physically, and academically. By this time, students should transition from “learning to read” activities to “reading to learn” in grade-appropriate activities. This transition experienced by middle school students not only affects the reading, academic, or mental state of students but also their socio-emotional and physical states as well. An effective teacher thus becomes one who is aware of the needs of their students and can form a relationship, connect with students, value their thoughts, empathize, be involved in school activities, and create environments that reflect teachers and diverse student learners.

Physically, eighth-grade students seek a sense of independence from their families, and they become more experienced with situations and events of the larger world. This is a time when the world is about them, their friends, and their relationships. At this stage of development, a middle school student’s social and mental abilities grow quickly. Physical growth slows and the refinement of gross motor skills takes place. Educators must be adept at understanding these challenges and incorporating instruction designed to engage and explain the world around them.

Literature on Teaching and Advanced Literacy

According to the New York State Education Department, reading and writing—both language-based competencies—have become prerequisites for participation in nearly every aspect of day-to-day life in the 21st century. While there was a time when basic literacy skills provided a clear path forward, today’s students need to develop an increasingly complex set of literacy skills and competencies to access social and economic opportunities. In this knowledge-based economy, New York State is enhancing instruction with an initiative, Advanced Literacy: A Call to Prepare Our Students for Lifelong Learning.

The rate at which knowledge is generated and shared today, often via technology, is unprecedented in human history. To keep pace, today’s children must become tomorrow’s lifelong learners, able to marshal reading, writing, and thinking skills. Today’s children must also become adults who are able to communicate and navigate an increasingly interconnected society—one in which literacy skills are routinely called upon. In other words, all students must develop advanced literacies.

Advanced literacies denote a set of skills and competencies that enable communication, spoken and written, in increasingly diverse ways and with increasingly diverse audiences. This requires writing with precision, reading with understanding, and speaking in ways that communicate thinking clearly. Advanced literacies also promote the understanding and use of texts for a variety of purposes. Likewise, they enable participation in academic, civic, and professional communities where knowledge is shared and generated.

The review and analysis of the research literature relevant to effective teacher practice and student reading achievement are organized into three sections: Effective Teacher Practices, Student Achievement, and Professional Development.

Effective Teacher Practices

Developmental Designs Approach

The study *Perceptions of Teaching Practices, Teacher Support, and School Engagement Among Middle School Students: An Examination of the Developmental Designs Approach* (Mustafa et al., 2017) was conducted to examine student-perceived teacher support as a possible mediator for relations between teachers' use of Developmental Design (DD) practices and middle school students school engagement.

Data for the study was drawn from a longitudinal examination of the influences and impacts of the DD approach conducted by the senior author. Three public middle schools (Grades 6-8) in a large, racially, and ethnically diverse public district in a Midwestern U.S. city began implementing the DD approach in 2012-2013. Surveys were administered to students and their teachers in the fall (T1), in the spring (T2), and at the end of the school year at the onset of the study.

Data included survey responses from 571 sixth-grade students across 31 classrooms. Students were 52% female with a mean age beginning sixth grade of 11.27 years. Students were 50% White; 19% Asian/Pacific Islander, 11% African American/Black; 6% Latino/Hispanic; 1% Native American; and 13% from other ethnic backgrounds. The majority of teachers (66%) taught in core subject areas (33% English Language Arts, 25% mathematics, 4% science, and 4% social studies/history) with the rest

(34%) teaching electives, including physical education, music, and languages. Teachers were predominantly White (97%) and female (69%).

Students were followed for three years, with annual surveys administered to sixth through eighth-grade students and their teachers at T1 and T2 of each school year. Students were able to respond to questions during administration and instructions were read aloud including reassurance that the survey was not a test and that no one would at the school see their responses; students were encouraged to be as honest as possible. Researchers used inaugural year data to examine the role of perceived DD practices and support among sixth-grade students.

The researchers identified a way in which a teacher's developmentally aligned classroom practices supported middle school student engagement. The researchers also linked the notion that teacher support and DD could act as a community-building and engaged-learning teaching approach designed to meet adolescents' developmental needs for autonomy, belonging, and competence.

The results showed considerable variation in sixth graders' end-of-year levels of school engagement, which varied by class and teacher. Researchers found the final model of statistical analysis suggested that a substantial proportion of the within-class variation in school engagement could be attributed to sixth graders' perceptions of teacher practices and the accompanying perceptions of teacher support (or lack thereof). These findings were consistent with the social cognitive theories of Vygotsky, demonstrating the effects of culture and environment on meeting the developmental needs of adolescents.

Teacher Motivational Behaviors

The study *Effects of Student Perceptions of Teachers' Motivational Behavior on Reading, English, and Mathematics Achievement: The Mediating Role of Domain-Specific Self-Efficacy and Intrinsic Motivation* (You et al., 2016) was based on the Korean educational system where academic achievement is a crucial factor in determining a student's academic opportunities for college. Researchers studied ways to improve student academic achievement by exploring the relationship between student perceptions of teachers' motivational behaviors and students' academic achievement, as well as the mediating effects of student motivation and self-efficacy.

Among the 150 participating schools, 122 were public and 28 were private. The sample of 6227 middle school students included 3014 (48.4%) females and 3213 (51.6%) males. The mean age of students in 2005 was 12.82. The sample excluded students who did not respond to all three questionnaires used for data collection. A robust 2910 teachers were involved, 903 were male (31.0%) and 1928 were female (66.3%) with 79 (2.7%) providing no response to gender.

Using the Korean Education Longitudinal Study data, researchers employed structural equation modeling (SEM) to assess the impacts of different variables (i.e., student perceptions of their teachers' motivational behavior, self-efficacy, and intrinsic motivation) on the academic achievement of students. Researchers further examined whether relationships differed depending on the school subject, specifically, reading, English, and mathematics.

The conceptual framework used to undertake this study came from two theoretical frameworks: Expectancy-Value Theory and the Self-Determination Theory. Expectancy–

Value Theory is used to understand the relationship between self-efficacy and achievement; Self-Determination Theory explains the relationship between students' intrinsic motivation and achievement.

Beliefs about how an individual will perform on different tasks and values which are the individual's reasons for performing the activity (Eccles, 1983), were at the core of the Expectancy-Value Theory, which is based on expectations. Eccles (1983) further argued that an individual's combined expectancy and value directly influence achievement-related behaviors such as performance, persistence, and task choice.

Self-Determination Theory, a theory of motivation, was the second element of the conceptual framework. This speaks to the "inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn" (Ryan & Deci, 2006, p. 70).

Correlations and descriptive statistics were conducted on the mean scores from the three administrations of surveys. Findings suggest that student perceptions of teachers' motivational behavior scores and students' academic self-efficacy and achievement scores were highly interrelated. The results indicate that students' self-efficacy and intrinsic motivation mediated the relationship between student perceptions of teachers' motivational behavior and student academic achievements in all three subjects. Aligned with Bandura (1977), the study suggested that students' self-efficacy and intrinsic motivation increase when students positively perceive their teachers' motivational behaviors, improving student performance in reading, English, and mathematics.

Considering the frameworks integrated with this study, Bandura's (1977) self-efficacy theory may be used relevant to student academic achievement, which consisted of

students' self-efficacy, motivation, and the student perceptions of teachers' motivational behaviors.

These results indicate that when teachers displayed motivational behaviors towards their students by giving them praise, offering words of encouragement, rewarding them, and even challenging their students, student self-efficacy and intrinsic motivation to do well increased, supporting both Bandura (1977) and Vygotsky (1978).

Teacher Enthusiasm

While the last review on teacher enthusiasm was decades ago, teacher enthusiasm remains an interesting variable in the educational context. Since Rosenshine's (1970) review, the conceptualizations, definitions, methodology, and results have only become more scattered, and several related constructs have emerged that may or may not be synonymous with teacher enthusiasm. In *Teacher Enthusiasm: Redefining a Complex Construct* (Keller et al., 2016), teacher enthusiasm was explored as a potential starting point for a new, consolidated focus on teacher enthusiasm based on a proposed, holistic definition of enthusiasm which brings together research from the past to reinvigorated research for the future.

Keller et al. (2016) began by reviewing definitions of teacher enthusiasm and related constructs, offering a new and integrative definition of teacher enthusiasm that combines the two most prevalent conceptualizations of the construct, namely experienced enjoyment and expressive behavior. They present numerous measures that assess teacher enthusiasm, detail research evidence related to its correlates, and present research implications that, when considered in the context of future research, promises to advance the field (Keller et al., 2016).

The research literature was drawn upon for the conceptualization, measures, and correlations of teacher instruments and procedures related to teacher enthusiasm. The researchers reviewed definitions and related constructs of teacher enthusiasm adding two new prevalent constructs, enjoyment, and expressive behavior. Researchers sampled numerous tools used to measure and assess teacher enthusiasm and provided their implications for future research to advance the field.

Other studies have explored the concept of teacher enthusiasm, yielding causal evidence of the effects of teacher enthusiasm on student outcomes (Bettencourt et al., 1983; Patrick et al., 2000). These researchers favored a reciprocal relationship between the two. Researchers noted that not only does teacher enthusiasm positively affect students, but it also influences the level of student achievement and motivation which likely impacts teachers' enthusiasm in a cyclic manner (Keller et al., 2013; Patrick et al., 2000). This research examined effective teacher qualities which may be perceived by students and improve their outcomes. The research cited the value in teacher enthusiasm and behaviors being reciprocal to that of the students' levels of motivation, affect, and achievement.

The researchers cited Locke and Woods (1982) who contended that to influence student outcomes, teacher enthusiasm would need to be perceived as such by students. They maintain that only when teachers were experiencing enjoyment, and it was displayed, could students benefit. How students perceive their teachers' levels of enjoyment and nonverbal behaviors impacts their motivation, affect, and achievement with the teacher.

Student Perception Data

The literature has shown that school leaders who use multiple sources of data can support and improve the outcomes for students. The use of perception data by and for

school systems is on the rise. The collection of perception data has not only been utilized in NYC schools, but districts in Chicago have also used data as an evaluative tool for many of their schools.

Student perception survey data can be a powerful tool to capture the nuances of teaching which impact student achievement and performance. Leaders of schools must be receptive and able to use this data to support the work of teachers. Factors such as individual teacher levels, knowledge of content, teacher-student relationship, race, and gender all impact student perception of effective teaching.

Insights can be gleaned from research on the extent to which teachers themselves feel connected and supported by peers, parents, and administrators. These insights add another layer for future studies which recommend an investigation of how teachers use and adapt general principles for crafting challenging work for their students and improving teacher motivation. Cognitive theories by Bandura (1977) align with these findings, which suggest that students' self-efficacy and intrinsic motivation increase when they perceive their teacher's motivational behaviors positively, which ultimately improves their performance in reading, English, and mathematics.

Multilingual Learners

Middle school teachers around the nation are encountering unprecedented numbers of students from diverse cultural, ethnic, and racial backgrounds. *Effective Teaching Strategies for Middle School Learners in Multicultural, Multilingual Classrooms* (Allison & Rehm, 2007) suggest that with the rapid influx of immigrants entering the U.S. educational system, the number of students who speak a native language other than English will account for about 40% of the school-age population by 2040 (Allison & Rehm, 2007).

The reality of a multicultural, multilingual student population dictates that educators, 98% of whom are Caucasian, must be prepared to interact and work with students who do not share the same language, culture, or national origin (Allison & Rehm, 2007).

The increased diversity in the nation's classrooms has prompted much attention to the challenges associated with educating a multicultural, multilingual student population (Darling-Hammond et al., 2005; Martin-Jones & Jones, 2001). Some researchers believe that meeting the needs of diverse students is, and will become, even more, challenging for middle school teachers because they must also help students deal with the unique developmental changes that occur during adolescence (Smith et al., 2005; McLeod, 1996). As young adolescents confront a host of transitions associated with the emergence of puberty, including dramatic physical, social-emotional, and cognitive changes, they also undergo transformations in relationships with parents, encounter more emotionally intense interactions with peers, and struggle with personal identity issues (Steinberg et al., 1981).

In addition, young students from varying cultural and racial backgrounds may simultaneously experience cultural conflict in the home and pressure from racially and culturally different peers at a particularly salient stage in cultural identity development (Banks, 2001; Coll et al., 1996; Smetana & Gaines, 1999). Middle school teachers, therefore, must become educated about and skilled in using pedagogy that is sensitive and responsive to the development and educational needs of young adolescents from diverse racial, ethnic, and cultural backgrounds.

Other Effective Practices

As classrooms become more diverse, visual aids are a valuable and necessary instructional tool because many diverse students are not auditory learners (Curtin, 2006).

Middle school teachers can incorporate the use of pictures, cartoons, maps, graphs, charts, diagrams, videos, and other multimedia resources to enhance learning and engage in different ways by presenting information in a visual format.

Peer tutoring is a strategy that has proven highly effective with diverse middle school student populations. The strategy pairs two students of differing abilities and backgrounds. When native English-speaking students are paired with English language learners, the former become teachers and resources for each other, often better to each other than they would to a teacher (Kline, 1995). Furthermore, peer tutoring promotes communication, and motivation, and helps learners attain higher levels of achievement while developing friendships with peers from different backgrounds (Saravia-Shore & Garcia, 1995; Biehler & Snowman, 1993)

Cooperative learning benefits all students. This entails grouping diverse students into heterogeneous groups to collaborate and cooperate with each other on activities and problem-solving tasks. This has been shown to promote inter-ethnic friendships, support cross-cultural understandings, and build teamwork while also enhancing literacy and language acquisition among linguistically diverse students (Crandall et al., 2001; Saravia-Shore & Garcia, 1995; Biehler & Snowman &, 1993). Furthermore, since young adolescents are extremely interested in their peers, cooperative learning provides a perfect opportunity for them to interact and collaborate with friends and other young people who may become friends.

Alternate modes of assessment are another sound teaching practice that is appropriate for diverse learners. Assessment techniques must be compatible and relevant to the cultural backgrounds, learning styles, and life experiences of all students. Similarly,

as multiple modes of input are essential when presenting information to diverse learners, multiple and alternative modes of assessment are important when evaluating students because they do not require an elevated level of language proficiency (Carter & Nunan, 2001). Diverse learners tend to have a preference for hands-on learning, so performance-based assessments are helpful with tactile or kinesthetic modes of learning (Carter & Nunan, 2001; Curtin, 2006). Because early adolescence is a time when self-concept and self-esteem are unstable, helping all young learners demonstrate their abilities and strengths in successful ways is important (Steinberg et al., 1981; Valentine, 2000). The use of portfolios, a collection of samples that represent a student's work, allows the student to showcase their work and nurtures a sense of accomplishment.

Student Achievement

Fusion Reading

A Randomized Controlled Trial of the Impact of the Fusion Reading Intervention on Reading Achievement and Motivation for Adolescent Struggling Readers (Schiller et al., 2012) examined the effects of an intervention, Fusion Reading, on the reading achievement and motivation of struggling adolescent readers. Fusion Reading was implemented in Grades 6 through Grade 10 in four middle schools and three high schools from three districts in Michigan. Eligible struggling readers were assigned randomly to the Fusion Reading intervention or a “business as usual” control condition which did not include additional reading instruction. Intervention students received a multi-component, strategy-based Fusion reading intervention from trained teachers for one class period, five days a week, for an entire school year.

In the Fusion Reading Intervention study, teacher instruction was aligned to the grade-appropriate curriculum scope and sequence. Literacy routines were established:

- warm-up (3-5 minutes) where students are engaged in an activity at the beginning of class to provide a connection to class readings and key strategies
- thinking reading (5-7 minutes) with the teacher demonstrating expert reading behaviors
- explicit instruction (30 minutes) where teachers describe, explain, and model specific metacognitive steps of the strategy
- vocabulary (10 minutes), explicit vocabulary instruction follows a seven-step vocabulary process
- wrap-up (5 minutes): students review the lesson.

It is important to note that several literacy foci were introduced as interventions, not just a vocabulary and word drill. Fusion Reading was engineered in light of 1) necessary and sufficient conditions for successful reading by focusing on word identification and reading comprehension (Gough & Tunmer, 1986) and 2) research demonstrating the advantages of cognitive and metacognitive strategy instruction (Kamil et al., 2008; Scamacca et al., 2007). Teacher manuals provided each lesson plan with a one-page overview that included:

- learning objectives
- a lesson-at-a-glance chart with the approximate time needed for each activity and a short description of activities for the lesson and required materials
- an example lesson script for each lesson that consisted of a detailed, step-by-step process model of the lesson with both written and visual cues

- the materials necessary to teach the lesson, such as strategy cue cards, reading passages, assessment score sheets, and progress charts and graphs.

Progress assessment forms and answer sheets were provided at the beginning and end of each Fusion Book; formative assessment activities were available during partner and individual practice sessions throughout each unit. Student workbooks were available for The Bridging Strategy, Prediction Strategy, and Summarization Strategy. Age-appropriate trade novels, short stories, and more than 110 short expository passages gave students exposure to a variety of texts.

After one year of implementation of a two-year intervention with struggling adolescent readers, word reading outcomes were significantly improved with the intervention that explicitly taught vocabulary, paraphrasing, and word study strategies along with motivation strategies (e.g., setting goals and reading text relevant to the age group). The analysis of the mediating effects of Fusion Reading emphasized the importance of following implementation guidelines to achieve desired student reading outcomes.

Results indicated a statistically significant impact for the intervention on the Sight Word Efficiency subtest of the Test of Word Reading Efficiency, with an effect size (Glass Δ) of 0.11. Researchers concluded that stronger research designs with standardized measures typically yielded more reliable estimates of a treatment's effect and may have greater value for informing practice than less rigorous designs.

Bandura would argue that in the social learning system, new patterns of behavior can be acquired through direct experience or by observing the behavior of others. The Fusion Reading intervention provided to the students provided a rich experience that transformed instructional practice and encouraged learning. Most of the behaviors that

people display is learned, either deliberately or inadvertently, through the influence of example and the use of the intervention utilized by teacher practices and impact student behaviors.

NAEP Assessments

Much has been written about student performance on NAEP reading assessments. White et al. (2021) studied data for fourth-grade students performing at the Basic level, arguing they should be able to “locate relevant information, make simple inferences, and use their understanding of the text to identify details that support a given interpretation or conclusion.” They cite 2014 NAEP reading assessments that show more than one-third (34%) of the nation’s fourth-grade students perform below the national NAEP basic level, representing 52% of Black and 45% of Hispanic students.

They framed the problem as a lack of achievement level description for students who fall below the cut scores and NAEP basic; therefore, policymakers, educators, and researchers do not have a clear understanding of the nature of the reading difficulties these students face. Therefore, there is no clear indication of the root cause of their reading difficulties.

They hypothesize that poor oral reading fluency, oral reading, and foundational skills are characteristic of students in the below basic category. They defined oral reading fluency as the ability to read text aloud with speed, accuracy, and proper expression. Foundational skills underlining fluency are the word reading of familiar words and phonological decoding, the ability to pronounce unfamiliar words based on spelling with sounds corresponding.

In the 2018 NAEP oral reading fluency study, the researchers took a nationally representative sample of 1800 fourth-grade students from 180 public schools who completed the NAEP reading assessment. Word lists were used for common and uncommon words of increasing difficulty as well as four short reading passages (152 to 162 words) which the children read aloud. The research showed that poor oral fluency was prevalent among students who performed below the NAEP Basic level. Yet, for students who performed at NAEP Proficient and NAEP Advanced levels, these characteristics were not present.

The researchers concluded that long-standing concerns about the interpretation and uses of NAEP achievement levels do not provide users with a full picture of what a student can and cannot do. Educators, and those who rely on NAEP data results, need to know more about the fluency and foundational skills of students. As school administrators attempt to use their educational budgets on appropriate resources to support the struggling reading, and teachers plan to deliver targeted instruction and interventions, there is a need for more information through assessment data to learn what the student can do and at what level. Accordingly, the type and level of interventions needed can be addressed. Lacking the proper remediation and support, these fourth-grade students will become struggling middle school students with unfilled learning gaps.

Professional Development and Teacher Preparation

Teaching is complex work, especially in an ever-changing educational world. Federal laws change, state laws change, educational standards change, students change, and family situational supports change. Yet, the teacher remains focused on ensuring all students in her charge succeed. Period.

Teachers are responsible for teaching children how to read, as such classroom teachers must be provided with research-based training to effectively teach reading strategies designed to meet the varied needs of their students. This training should occur before the teacher enters the working classroom, bringing multiple opportunities for practice before applying for a provisional certificate. The provisional certificate is what many teachers without formal teacher training can minimally apply for. Additionally, training and coursework should include diagnosing and remediating reading problems.

As the role of the teacher has changed dramatically, in recent years, school leaders must ensure that there is support within the school community to connect and enhance the skills of teachers. While there is a lack of consensus on what constitutes high-quality teaching, there are two dimensions that are generally agreed upon: the level of knowledge and skills teachers bring to the classroom (i.e., preparation and qualifications) and classroom practices that serve as indicators.

Fast Response Survey (2000)

The National Center for Educational Statistics (UC DOE, 2000) conducted its second Fast Response Survey System to measure the change in teacher preparation and qualifications from 1998. They sampled 5,253 teachers in all grade levels across the 50 states including the District of Columbia. The survey provides a national profile on 1) teacher education, 2) teacher participation in formal professional development and collaborative activities, and 3) teacher feelings in preparedness for the demands of the classroom.

There were two key findings for teacher education. First, one measure of teacher education is the type of degree held, including advanced degrees. Second, at the middle

school level, all teachers held a bachelor's degree; 44% held a master's degree and less than 5% held a doctorate degree.

There were three key findings for teacher professional development (PD). First, in the 12 months preceding the survey, public school teachers were most likely to have participated in PD that focused on state and district curriculum and performance standards (80%); a study in the subject area of their teaching assignment (72%), and student performance assessment (61%). Second, teachers who spent eight or more PD hours on state and district assessment materials were more likely to indicate that they felt very well prepared for this type of instruction. Third, teachers were less likely to have participated in PD that focused on addressing the needs of students with disabilities (49%); encouraging parent and community involvement (36%); addressing the needs of students from diverse backgrounds (41%); and addressing the needs of students with limited English proficiency (36%).

There were three key findings for teacher collaboration (i.e., team teaching and mentoring). First, periods of common planning, team meetings, collaboration with teachers outside of school, and collaborative research on professional interests were the primary forms of collaboration. The least likely form of collaboration was the mentoring of another teacher in a formal relationship (26%) or being mentored by another (23%). Second, teachers who participated in this collaborative activity were more like than those who did not, to report feeling very well prepared for the overall demands of the classroom. Third, the frequency of PD was generally positive when it related to the teacher's beliefs about the extent to which the activity improved their teaching. The greater the frequency the higher the belief.

There were two key findings for teachers' feelings of preparedness. First, 61% of public school teachers felt very well prepared to meet the overall demand of their teaching assignments; this compared to 35% who felt moderately well prepared and 4% who felt somewhat prepared. Second, most teachers felt very well prepared to maintain order and discipline (71%). Only 27% felt very well prepared to address the needs of students with limited English proficiency and 32% of the teachers who taught students with disabilities felt very well prepared to address those students' needs.

PD, a traditional approach to workshops and readings, should include professional collaborative conversations and follow-up. Professional development is a key training opportunity that should employ structured conversations which require teachers to think critically about their work. The frequency of targeted sessions is significant if teachers are to view the activity as beneficial.

The Danielson Framework

In the past, New York State teachers have been evaluated based on classroom observations resulting in a rating of satisfactory or unsatisfactory. In 2017, NYS adopted the Framework for Teaching and Professional Development (Danielson, 2022), commonly referred to as the Danielson Framework, for its teacher evaluation system. The purpose and benefits of the Framework were to provide a common language for teachers and a common evaluation system for schools across the state. Similarly, across the nation, each state adopted its own uniform evaluation system. The Danielson Framework incorporates professional conversations about a teacher's learning journey and provides professional reading and actionable support.

The Learning Policy Institute (LPI), a California-based educational research group, regularly conducts research and communicates its findings to improve educational policy and practice. The Institute found seven widely shared features of effective PD: First, it is content focused. Second, it incorporates active learning utilizing adult learning theory. Third, it supports collaboration, typically in job-embedded contexts. Fourth, it uses models and modeling of effective practice. Fifth, it provides coaching and expert support. Sixth, it offers opportunities for feedback and reflection. Seventh and finally, it is of sustained duration (LPI, 2017, p.1). Effective professional development should include most of these features and interpret them into learning gains for students. The Danielson Framework meets this mandate.

School leaders must set the tone for PD to be effective and responsive in meeting the needs of teachers. Barriers such as a lack of resources, unresponsiveness to adult learners, lack of quality professional development, poor implementation, and an overall failure to assess the needs of the teachers and school community may produce undesired results.

Chapter Summary

This review of the literature suggests that middle school teaching to support struggling readers can be a complex task with many factors. It is an undertaking that begins with adequate knowledge and skill in teaching reading, a focus area that many new teachers lack. The study sought to examine and better understand the impact of effective teaching, teacher preparation, classroom practices, student self-efficacy, student self-regulation, professional development, parental involvement, and the relationship to reading achievement at the middle school level.

Accountability has impacted schools at every level in every way imaginable, and the responsibility of teachers is to ensure that all students are successful. Teaching at the middle school level becomes the shared responsibility of content area teachers and other specialty teachers. To address the needs of struggling middle school students, additional training is required focused on the planning and delivery of reading instruction tailored to these students' needs. It should include multiple interventions, as word study and vocabulary alone are not sufficient in reading remediations.

Administrators must be willing to spend their educational dollars on evidence-based strategies deliberately designed to yield the needed results. For content teachers to address the needs of the struggling eighth-graders, professional development training must focus on planning, delivering, and diagnosing effective reading instruction and interventions. Middle school teachers and administrators must also devote time to improving effectiveness and PD focused on instruction for culturally diverse populations, students with disabilities, adolescent students, and the instruction of students with limited English proficiency. The principal must ensure that teachers are empowered and supported with resources that provide the most current training and instruction on reading literacy strategies; they must engage frequently in professional conversations across the school community.

CHAPTER 3 METHODOLOGY

Chapter 3 describes in detail the research methodology for this quantitative study. This study utilized correlational research methods to determine the relationship between teacher qualities and instructional practices and the reading achievement of struggling eighth-grade students in an urban environment.

This exploration analyzes data from the 2013 National Assessment of Education Progress (NAEP) Eighth-Grade Reading Assessment. The study reviewed four predictors of reading achievement: gender, ethnicity/race, socioeconomic status, and independent variables for self - motivational and self-regulation. The researcher extrapolated data around teacher instructional practice from the self-reported questionnaires of teachers, students, and parents from the 2013 Grade 8 NAEP Reading Assessment.

This chapter provides a rationale for the research approach. It presents research questions and hypotheses. The chapter addresses research ethics. It describes the NAEP and the NAEP Reading Assessment data. The setting/context for the research, the sample, and the data sources are described. Additionally, this chapter examines NAEP's data collection and analysis methods; it provides a discussion of NAEP's reliability and validity. The chapter concludes with a summary of the data analysis conducted by this researcher.

Rationale for Research Approach

According to Creswell (2009), "a quantitative approach is a means for testing objective theories by examining the relationship among variables." The selected variables are then measured, with this study using IBM Statistical Program (SPSS) so that the numerical data can be analyzed using statistical procedures. As this methodology allows for statistical analysis of the data, counting, and measuring is another important aspect of

quantitative research. Goertzen (2017) noted that “quantitative research methods are concerned with collecting and analyzing data that is structured and can be represented numerically” (p. 12). As NAEP’s dataset is large, structured, and widely utilized to guide policies and educational reforms, a quantitative survey research design was deemed appropriate.

A correlational study is a quantitative research method in which the investigation attempts to study naturally occurring phenomena, in this case using the NAEP data. Often referred to as “The Nation’s Report Card,” NAEP is the national assessment used to measure what students should know and can do in specific subjects. NAEP data is an assessment instrument that has been tracking student achievement data nationwide since 1990 in the arts, mathematics, science, economics, geography, technology, engineering literacy, and reading. Rather than providing scores for individual students, results are offered for student populations and subgroups within those populations; data is also available for subject-matter achievement, educational experiences, and school environment, which supports the selection of this dataset for this quantitative approach.

The dataset is utilized to conduct regression analyses to determine whether or not there exists a subset of predictors among the independent variables that better predict gains in middle school student literacy achievement in reading as measured by NAEP.

Research Questions and Hypotheses

This non-experimental quantitative research study analyzed the 2013 NAEP Eighth-Grade Reading Assessments (i.e., restricted reading datasets) to explore the relationship between effective teacher practices/strategies and reading achievement. To determine the impact on reading achievement, factors for socioeconomic status (SES) were

created using home resources, race, ethnicity, gender, and factors relating to self-motivation. This study is guided by three research questions and three aligned hypotheses:

- Research Question 1: What is the relationship between the teachers' professional/instructional training and student reading achievement at the middle school level?
 - Hypothesis 1. There will be no statistical significance between the teachers' professional/instructional training and student reading achievement at the middle school level.
- Research Question 2: Is there a relationship between teacher classroom practice and eighth grade reading achievement?
 - Hypothesis 2. There will be no statistical significance between teacher classroom practices and eighth grade reading achievement.
- Research Question 3: Is there a significant relationship between teacher qualities and student reading achievement for any of the independent variables; race/ethnicity, gender, and socioeconomic status?
 - Hypothesis 3. There will be no statistical significance between teacher qualities on student reading achievement for any of the independent variables: race/ethnicity, gender, and socioeconomic status.

Research Ethics

The researcher adhered to the specific guidelines set forth by St. John's University Internal Review Board (IRB) and NCES. The researcher participated in the National

Institutes of Health Research Ethics Curriculum, passing the online test (see Exhibit 21). The research proposal project was submitted to the St. John's IRB to ensure the protection of the rights and welfare of participants involved in the study. This researcher has met all IRB requirements and was approved to conduct this study (see Exhibit 2). All ethical protocols were followed and maintained as a top priority throughout the study. An affidavit of disclosure was signed by the researcher to gain access to the restricted NAEP Datasets as required. Additionally, St. John's University complied with all NCES requirements concerning licensing and security protocols for the restricted data.

Overview of NAEP

Created by Congress in 1988, NAEP's National Governing Board sets the policies for NAEP and the development of the Reading Framework; the Board also oversees the test specifications and blueprints for assessments. The Board is an independent, bi-partisan group appointed by the Secretary of Education and composed of state legislators, governors, state and local school officials, educators, representatives from businesses, and members of the general public (NCES, 2019b). The Reading Framework developed by the Board defines the scope of the domain to be measured by delineating the knowledge and skills to be tested at each grade level, the format of the NAEP assessment, and the achievement levels (NCES, 2019b).

In addition to NAEP datasets, information was taken from the National Center for Educational Statistics (NCES), the federal department for collecting and analyzing diverse educational data in the United States. The website provides a vast variety of statistical analyses related to education; data is available and sortable by location, gender, age, and

educational level. Education and training, experience, and professional development analyses were utilized for this study.

The NAEP Reading Assessment

The National Assessment Governing Board oversees the NAEP reading assessment. NAEP reading assessments measure national, state, regional, and subgroup reading assessment data. The assessment measures reading comprehension by providing a series of reading passages and asking students questions about what they read. The 2013 assessment included two types of texts measuring the student's ability: literary and informational. Assessment questions for these texts were selected for the structural differences of the texts and for the purposes for which the student reads the different texts. Fiction, literary nonfiction, and poetry comprised the literary texts; informational texts consisted of exposition, argumentation, persuasive texts, and procedural texts and documents. Vocabulary was assessed within the context of the passage for comprehension purposes and the author's intent. Assessment questions were used to measure one of three cognitive targets: locate and recall, integrate and interpret, and critique and evaluate, which both types of questions measure.

NAEP reports achievement levels on the assessments in performance standards, describing what a student should know and be able to do. The levels consist of basic, proficient, and advanced. Levels of proficiency or above indicate stable academic performance and competency with the challenging subject matter in reading.

In 2013, the average scale score for the Nation's eighth-grade students in reading was 266 points. The percentage of student performance was 23% below basic, 42% at basic, 28% proficient, and 4% at advanced levels. A full 65% of the eighth-grade

population performed below the levels of proficiency. These levels do not represent proficiency, an indicator of students struggling to meet grade standards. The eighth-grade population performing below the levels of proficiency was 59% in 2009, 68% in 2011, 66% in 2015, and 66% in 2017; this data shows no meaningful change over the years. Most middle school students are struggling with reading achievement at their appropriate grade level.

Research Setting and Context

As the United States returns to in-person learning in the aftermath of the global pandemic, data from the NAEP reading scores have shown a three-point decrease in reading achievement for fourth and eighth graders. The reading achievement of eighth-grade students, in particular, was lower compared to all previous assessment years going back to 1998 and was not significantly different compared to 1992 (NAEP, 2022). This research study on middle school teacher practices is of practical significance in the field of education as it aims to provide middle school teachers with research-based instructional strategies and classroom practices to support and enhance culturally diverse struggling students.

Before schools were closed due to the pandemic, demand for professional standards and teacher accountability was a priority topic for most states. At the forefront of classroom instruction and student achievement are teachers. When we hold teachers accountable for student achievement and attempt to support them by providing staff training in the form of in-service workshops, conferences, and tuition assistance for college courses, we must determine the return on investment of taxpayers' money for professional development targeted at raising student achievement. The fundamental question boils

down to, “Is money spent on the professional development of teachers worth the investment?” For this undertaking, it was necessary to determine whether a relationship exists between developing effective teacher practices and reading achievement. The present study also sought to determine the relationship between effective teacher practices investigating professional development topics, the use of instructional interventions, reviewing teacher educational backgrounds, and classroom practices that produce positive gains in middle school student reading achievement.

Research Sample and Data Collection

Standardized testing is an alternate method for states to measure school and student performance. Student performance data was gathered from the 2013 NAEP Reading Assessment for Eighth Grade students. The NAEP reading assessment was manually administered to representative samples of fourth and eighth-grade students across the nation. Schools received numbered reading booklets for each student. Title 1 schools were mandated to participate in the biennial test administration. Test security and quality control measures were strictly enforced to ensure the accuracy of the data and its results. Testing modifications and accommodations with supporting documentation were made to maximize participation rates. To ensure all legal and state requirements were met, minimizing missing and inaccurate data, field staff were sent to support the school before, during, and at the end of the assessment.

The 2013 reading assessment was administered in pencil and paper format requiring students to read grade-appropriate passages and answer questions on a separate answer sheet based on the readings. The number of words in each reading selection ranged from 200 to 800 words.

The 2013 NAEP Reading Assessment results have restricted datasets that are secure and only accessible through licensing arrangements. This data is kept in a secure location and downloaded to a university's computer. Access is granted by the NAEP on-site coordinator who maintains a log of researcher usage and requires students to sign into the secure data files. NAEP data is compiled from a nationally representative sample of reading assessments including literacy and informational texts to assess student reading comprehension skills. Before the assessment date, students answer survey questions about their learning and engagement opportunities with reading in and outside of school.

In total, NAEP collected 3,938,00 eighth-grade student scores and responses creating a random student sample size of 176,300 for the Nation's Report Card 170,600 (public schools and 3,300 private schools). The demographics of the student are diverse, representing urban and rural populations across all 50 states, the District of Columbia, and schools provided internationally for children of parents employed by the United States Department of Defense.

NAEP engages a process of weights, to ensure the equalizing of the sample units to represent the sample population, intended to correct probabilities of the selection due to sample design. Sampled students are assigned a weight reflective of the sampling design and adjustments for nonparticipation. When data for simple surveys are reported, the standard error is calculated for each estimate, and the standard error for all estimated totals, means, medians, or percentages is reported in the NAEP reference tables (NCES, 2019a).

Rather than assigning individual reading scores, each respondent is assigned a plausible value, and NAEP calculates a student's "five plausible values." The NAEP explains that plausible values can be thought of as a mechanism for accounting for the fact

that the true scale scores describing the underlying performance of each student are unknown and are offered only as intermediary computations for calculating estimates of population characteristics. (NCES, 2016).

The NAEP Reading Assessment results are reported as average scores for groups of students using the NAEP scale (0–500) and as a percentage of those who have attained one of the three achievement levels (Basic, Proficient, and Advanced). Students who score below NAEP Basic are not necessarily nonreaders but are not able to attain the minimum score required for NAEP Basic; information is provided about them. NAEP data reports on subgroups of students by gender, race/ethnicity, whether they receive free or reduced-price lunch, region of the country, type of community, public or nonpublic school, and other variables important to understanding reading achievement from a national perspective.

Teachers, students, parents, and administrators are also required to complete questionnaires. For some teacher and administrator responses, additional information was gathered from other state and local sources to permit the questionnaire to obtain information in a non-intrusive unbiased manner.

As stated in NAEP's Governing Board policy, the collection of contextual data on students, teachers, and schools is necessary to fulfill the statutory requirement that NAEP includes information whenever feasible that is disaggregated by race or ethnicity, socioeconomic status, gender, disability, and limited English proficiency. Contextual information serves the additional purpose of enriching the reporting of NAEP results by examining factors related to academic achievement in the specific subjects assessed (Reading Framework, p. 51). The Governing Board also states that by participating in the

data, it does not report on individual students or schools in accordance with the IRB guidelines.

Population and Sample

The NAEP provides data and results on student group achievement, group-level instructional experiences, and school environment factors so that an accurate picture of student performance can be obtained by administering NAEP to a representative sample of students who reflect the student population of the nation as well as those of individual states and districts participating in the Trial Urban District Assessment (NAEP 2022).

A total of 176,600 public school students participated in the assessment in 2013, representing 3,336,000 students in the targeted population (see Table 2, below); the results are weighted to make appropriate inferences about populations from student, school, and district samples. When necessary, sampling weights are adjusted to account for a disproportionate representation of the sample. Schools were selected, identified, classified, confirmed, arranged, and listed.

Random student assessment data were collected as part of the 2013 English Language Arts assessment by each of the selected schools digitally. Data was gathered for eighth-grade students by NAEP. Testing assurances of assessment protocols for quality control measures were established to ensure the accuracy of the data and results. Testing accommodations were granted, and schools were asked if students were provided with specific accommodations to maximize student participation rates. At each phase of the assessment, field support staff were assigned to schools to ensure that legal and state assessment regulations were met and to minimize the risk of incomplete or inaccurate data.

Table 2*Target Population and Sample Size: 2013 Grade 8 Reading Assessment*

Category	Target Population	Sample Size
Public Schools	3,556,000	170,600 (4.8%)
Private Schools	323,000	3,300 (1.0%)
Total	3,887,000	176,300 (4.5%)

(NAEP, 2013).

With major planning and revisions since 2017, the reading assessment at selected schools is administered digitally. Students are directed to read grade-appropriate passages and then answer the related questions on tablets supplied by NCES. NCES established a secure NAEP network to create an assessment environment independent of school-based equipment or school internet connectivity. Using a touchscreen tablet, a keyboard, or a stylus, students interact with the passages and can zoom in. For the Directions and Help screens, students are provided with a text-to-speech capability. Before the assessments, students viewed a tutorial to familiarize themselves with the digital testing system, including how to take the assessment on a tablet, how to locate or answer the questions, and how to use the tools. The digitally based reading assessment was designed to keep pace with the new generation of classroom environments in which technology has become a part of students' learning. Passages and questions that had been previously administered through pencil and paper were adapted to fit a tablet screen.

Months before the assessments are completed, students, teachers, and administrators are provided with questionnaires about their learning experiences. At the middle school level, student responses are taken for up to two content areas per student. Student and teacher responses are collected, in addition to responses from the school

administration. The questionnaires for students and teachers provide a better view of educational experiences and factors affecting learning within and outside of the classroom.

Procedures for Data Collection

Data from the NAEP 2013 eighth grade reading assessment was collected from the restricted use area of the NAEPEX Data Center through the secure access of St. John's University's NAEP license. The files were kept in a locked office, on a secure computer, with permission granted for use. A five-step procedure was used for data collection and analysis:

1. Access NAEPEX files to locate and obtain 2013, and eighth grade reading achievement results from the teacher and student questionnaires.
2. Review each response statement for inclusion in the data set. Select and copy to make a syntax file.
3. Review the selection file for sorting variables and categorizing related factors.
4. For each category of teacher qualities, conduct an inferential analysis between student reading achievement and teacher/student response variables.
5. Conducted multiple regression analyses between the five plausible value scores and the corresponding teacher factors.

This was followed by a four-step reporting process:

6. Analyzed results and provided written descriptions.
7. Discussed findings and implications.
8. Included a statement of limitations.
9. Summarized findings in writing.

Data Analysis Methods

This non-experimental study analyzed archived statistical data from 2013 eighth grade NAEP reading assessments. A quantitative method for exploring and summarizing the results of studies is a meta-analysis (Pang & Kamil, 2004). A meta-analysis is a study designed to systemically access the results of previous research to derive conclusions about a body of research. This type of study is usually based on randomized, controlled clinical trials. In 2017, NAEP shifted the manual process to an automated system for capturing data and examination of the response data. One way to make research more ecologically valid is by using computers to collect a large body of data about the conditions surrounding the research context (Bronfenbrenner, 1977).

NAEP Variables

The researcher reviewed the NAEP reading assessment response variables for eighth-grade students, teachers, and parents. The response statement variables were aligned to student reading achievement, measures of motivation and self-regulation, and factors of teacher instruction, teacher education, and professional development. Independent variables such as race/ethnicity and socioeconomic status were identified and selected. Specific variables aligned from the NAEP Teacher and Student Survey statements aligned with reading achievement were selected. School administrator responses were not included in the NAEPEX data file for inclusion. Table 3, below, shows the 80 variables selected for the study.

Table 3*List of NAEP Variables Selected for the Study*

NAEP Item #	Research Factor	NAEP Student and Teacher Survey Statement
B013801	SES	Books in home
B017101	SES	Computer in home
B0267A1	SES	Access to the internet
B0267D1	SES	More than one bathroom
B0267C1	SES	Dishwasher
PARED	SES	Parental education level
B003601	SES	Father's education level
B003501	SES	Mother's education level
B0267E1	SES	Your own bedroom
DRACE10	SES	Race/ethnicity (student reported)
SLUNCH	SES	National School Lunch Prog Eligibility (6 categories)
B018201	SES	Language other than English spoken at home
T102001	PD	Prof-dev-how students learn English/language arts
T102002	PD	Prof-dev-content standards English/language arts
T102003	PD	Prof-dev-curricular materials English/language arts
T102004	PD	Prof-dev-instructional methods for reading
T102005	PD	Prof-dev-methods for assessing English/language arts
T102006	PD	Prof-dev-prep students for district/state assessments
T102007	PD	Prof-dev-teach English/language arts stud w/divers background
T083801	PD	Prof-dev-college course
T083802	PD	Prof-dev-workshop or training
T083805	PD	Prof-dev-mentoring
T083807	PD	Prof-dev-discussion or study group
T083808	PD	Prof-dev-teacher collaborative or network
T083809	PD	Prof-dev-individual/collab research
T083810	PD	Prof-dev-independent reading
T083811	PD	Prof-dev-co-teach/team teach
T083812	PD	Prof-dev-consult lang arts specialist
T097501	PD	Training in basic computer
T097503	PD	Training in use of the Internet
T097505	PD	Training in integrating computers into instruction
R833001	RSE	Read a book you choose yourself
	RSE	Effort on this reading test
	RSE	Does student have limited use of English language
R833501	RSE	Talk with friends about what you read
R833401	RSE	Read for fun on own
R833001	RSE	Learn a lot when reading books
	RSE	Difficulty on this reading test
R833101	RSE	Reading is a favorite activity

Table 3, continued

NAEP Item #	Research Factor	NAEP Student and Teacher Survey Statement
T056301	TE	Highest academic degree
T077385	TE	Undergrad major/minor rdg, lang arts, literacy ed
T077306	TE	Undergrad major/minor English
T077307	TE	Undergrad major/minor other language arts
T086802	TE	Undergrad major/minor elem/second ed
T118801	TE	Undergrad major/minor special education
T118802	TE	Undergrad major/minor in English-language learning
T126005	TE	Grad major/minor reading, lang arts, lit ed
T126006	TE	Grad major/minor English
T126007	TE	Grad major/minor other language arts
T126012	TE	Grad major/minor elem or secondary educ
T26009	TE	Grad major/minor special education
T126010	TE	Grad major/minor ELL
T122201	TE	Excl stud tchng, #yrs worked as elem/secondary tchr
T126101	TE	Years taught reading/writing/LA in grades 6-12
T122301	TE	Have been awarded tenure
T125801	TE	Hold valid regular/standard teaching certificate
T056301	TE	Highest academic degree
T216005	TE	Grad major/minor reading, language arts, literacy education
T112101	TE	Teaching -use different methods for some students
T112102	TE	Teaching- use other materials for some students
T112104	TE	Teaching-engage some students in different activities
T112105	TE	Teaching-set diff standards for some students
T111601	TE	Taught about fiction this year
T111602	TE	Taught about literary nonfiction this year
T111603	TE	Taught about poetry this year
T111604	TE	Taught about exposition this year
T111605	TE	Taught about argumentation/persuasion this year
T111606	TE	Taught about procedural texts this year
T105701	TE	Students summarize the passage
T105702	TE	Students interpret meaning of passage
T105703	TE	Students question motives of characters
T105704	TE	Students identify main theme of passage
T105705	TE	Students read aloud
T111702	TE	Students write about what they read
T111703	TE	Students given time to read books of their choice
T111704	TE	Students do group act/project about what they read
T111705	TE	Students explain understanding of what they read
T100101	TE	Emphasis on locate/recall when reading text
T100102	TE	Emphasis on integrate/interpret when reading text
T100103	TE	Emphasis on critique/evaluate when reading text

Statistical Analysis

The researcher used IBM's Statistical Package for the Social Sciences (SPSS) version 0.06.04 to manage and analyze the 2013 NAEP reading assessment data and create statistical models. In addition to using SPSS, software from the American Institute for Research (AIR) AM Beta was utilized for the analysis of intricate and large data samples; AM Beta's primary focus is to estimate regression models.

Variables were initially extracted from the 2013 NAEP Grade 8 Reading Assessment Restricted-Use data files utilizing the NAEPEX software. Upon receiving the scores, the researcher then entered the data into an Excel spreadsheet and copied the output information into the SPSS to create factor analyses and run correlation data. Cronbach's alpha was used to ensure the internal consistency and reliability of all factors having different response choices. The dataset was then imported into the AM Beta Statistical Software program. To answer each research question, data from the NAEP dataset was entered into the SPSS program, and variables were added to identify public school groups.

Background variables from the reading assessment and teacher responses were synthesized into factors. Factor analysis using a principal component extraction method and Promax rotation was conducted. To determine the strength of the relationships between teacher qualities, practice, preparation, and student reading achievement, correlation coefficients using Pearson's r were utilized.

Issues of Trustworthiness

The NAEP is a world-renown organization whose mission is to measure the educational achievement and progress of the nation's students at established grades and ages. NAEP also has the responsibility of reporting, sharing the results, and creating the

NAEP frameworks. The data selection process which they employ is a rigorous system with several national organizations assisting in the vetting process. In 2012, NAEP released the following statement about the validity, reliability, and professional standards for their assessments (NCES):

The assessment and item specification shall produce an assessment that is valid, reliable, and based on relevant, widely accepted professional standards. The specifications shall also be consistent with Governing Board policies regarding NAEP design, such as groupings of items, test administration conditions, and accommodations for students with disabilities and English language learners. The specifications were reviewed by technical experts involved in the process before submission to the Governing Board.

Limitations and Delimitations

Limitations of the target population in the study included the fact that many students across the nation did not participate in the 2013 assessment, so their achievement data could not be incorporated into the results. The 2017 NAEP Restricted Use data is not available for use by the public, so this study was limited to using the 2013 data for this research.

CHAPTER 4 RESULTS

Chapter 4 presents the findings from this research, encompassing descriptive statistics, correlations, *t*-tests, factor analysis, and regression analyses of the 2013 Eighth Grade National Assessment of Education Progress (NAEP) Reading Assessment. Factor analysis is a technique used to reduce a set of variables to a smaller number of factors by looking at the correlation between them; factors were constructed to analyze the NAEP Reading assessment variables relevant to instructional practices. The research questions and hypotheses are addressed in the context of the research data. The results of this quantitative research speak to trends in teacher instructional practices that impact and support struggling eighth-grader readers and their reading achievement in a public school setting. These results are discussed and recommendations for practice are made in Chapter 5.

This investigation analyzed data from the 2013 NAEP Eighth-Grade Reading Assessment. The study looked at four predictors of reading achievement: ethnicity/race, gender, socioeconomic status, and independent variables for motivation. To determine the impact on reading achievement, factors for socioeconomic status (SES) were created using home resources, race, ethnicity, gender, and factors relating to self-motivation. The researcher extrapolated variables from self-reported, teacher, parent, and student questionnaires relating to teacher instructional practice and preparation using 2013 NAEP Eighth-Grade Reading Assessment surveys as independent variables. Teacher variables and factors were grouped by reading instruction, curriculum, undergraduate training preparation, graduate education, best practices, and professional development.

Research Questions

This non-experimental quantitative research study analyzed the 2013 NAEP Eighth-Grade Reading Assessments (i.e., restricted reading datasets) to explore the relationship between effective teacher practices/strategies and reading achievement. This study is guided by three research questions:

- What is the relationship between the teachers' professional/instructional training and student reading achievement at the middle school level?
- Is there a relationship between teacher classroom practice and eighth grade reading achievement?
- Is there a significant relationship between teacher qualities and student reading achievement for any of the independent variables; race/ethnicity, gender, and socioeconomic status?

Data Analysis

To determine the relationship between selected NAEP variables, an exploratory factor analysis was conducted using the principal component method with a Promax rotation for a selection of related student and teacher variables. Factor analysis was conducted using 151,777 sample responses. Descriptive statistics for the teachers represented in the study are presented in Table 4, below.

The researcher selected related variables from the Restricted Use area of NAEP and entered them into NAEPEX to generate the data output file. The output data file was saved and uploaded into SPSS to create the SPSS syntax file. Once the file was uploaded into SPSS, the spreadsheet was saved and accessed as the working dataset for the study.

Table 4*Descriptive Data (n = 151,777)*

Category	<i>M</i>	<i>SD</i>
Hold valid regular/standard teaching certificate	1.12	.551
Highest academic degree	3.70	.721
Undergrad major/minor rdg, lang arts, literacy ed	2.95	1.872
Undergrad major/minor English	2.23	1.664
Undergrad major/minor other language arts	3.45	1.962
Undergrad major/minor elementary/secondary educ	2.39	1.963
Undergrad major/minor special education	3.58	1.858
Undergrad major/minor English-language learning	3.65	1.829
Since undergrad degree taken any graduate courses	1.25	.816
Grad major/minor reading, lang arts, lit ed	3.54	2.548
Grad major/minor English	3.87	2.484
Grad major/minor other language arts	4.19	2.408
Grad major/minor in elem or secondary educ	3.48	2.662
Grad major/minor special education	4.19	2.372
Grad major/minor ELL	4.21	2.344

From the created dataset, the researcher conducted multiple-factor analyses with four factors relating to 1) student self-regulation, 2) teaching preparation/instructional practices, 3) professional development, and 4) socioeconomic status. The criteria used to select the factor components were 1) eigenvalues greater than 1, 2) factor loadings over 0.3 or less than -0.3, 3) factor loadings that loaded to one factor, and 4) factors that aligned with the theories. The factor analyses produced a Principal Component Analysis (PCA) which allowed the researcher to distinguish relationships and commonalities among the factors with fewer variables.

Findings for Research Question 1

Research Question One asked, “What is the relationship between the teachers’ professional/instructional practices and student reading achievement at the middle school level?” An investigation of the variables relating to teachers’ professional training and student achievement was conducted using factor analysis. Fifteen item variables relating to the teacher. educational backgrounds were entered. Table 5 shows the component matrix of the teacher’s professional educational preparation history with the four components extracted: 1) Graduate Degrees, 2) Undergraduate Degrees, 3) Experience, and 4) Licensing.

Table 5

Component Matrix: Teacher Educational Preparation

Teacher Preparation	Component			
	1	2	3	4
Grad major/minor ELL	.906			
Grad major/minor other language arts	.890			
Grad major/minor special education	.882			
Grad major/minor English	.834			
Grad major/minor reading, lang arts, lit ed	.798			
Grad major/minor in elem or secondary educ	.793			
Undergrad major/minor English-language learning	.655	.625		
Undergrad major/minor special education	.627	.580		
Undergrad major/minor other language arts	.590	.543		
Since undergrad degree taken any graduate courses				
Undergrad major/minor English				
Undergrad major/minor rdg, lang arts, literacy ed		.533		
Undergrad major/minor elementary/secondary educ		.459		
Highest academic degree		.420		
Years taught reading/writing/LA in grades 6-12		.509	.755	
Excl stu tchng, #yrs worked as elem/secondary tchr		.522	.746	
Hold valid regular/standard teaching certificate				.709
Have you been awarded tenure by school where teach				.575

Note. Extraction Method: Principal Component Analysis. Four components extracted.

Graduate degrees produced positive factor loadings in the range of .590 to .906. Undergraduate degree components had factor loadings in the .420 to .533 range also. The areas of experience and licensing also produced positive statistically significant factor loadings, reflecting a relationship between these components and student reading achievement.

The researcher then utilized the AM Statistical Software program from the American Institute for Research (AIR) to analyze the plausible values. The program is used to analyze complex samples from large-scale data. AM software computes the *F*-statistic and the corresponding *p*-value for a regression model; it includes the significance for each variable that contributes to the regression equation, reported as *z*-scores. The program also provides a Root Mean Square Deviation (RSME) value used to measure the differences between values, allowing the units of measure to be the same as the dependent variables.

Table 6 shows the results of the plausible value regression analysis that explored the post-stratified data using 10 Plausible NAEP Reading Values between teacher instructional and professional practices. The data analysis revealed that there was a statistically significant relationship between teachers' instructional practice and professional training, revealing that these variables may serve as predictors of middle school reading achievement.

Table 6*Plausible Value Regression-Step Two*

Parameter Name	Estimate	Standard Error	Z Score	P > [z]
Constant	273.317	3.150	86.759	0.000
(F1) Teacher Reading Instruction	-0.153	0.063	-2.446	0.014
(F2) Teacher Professional Development	0.0740	0.126	5.880	0.000
(F3) Undergraduate Education	0.030	0.041	0.727	0.467
(F4) Graduate Education	-0.013	0.021	-0.646	0.518
(5) Teacher Best Practices	0.183	0.029	6.310	0.000
(F6) Teacher Instructional Practices	-0.066	0.051	-1.297	0.195
(7) Teacher Varied Instruction	-0.472	0.074	-6.399	0.000
(8) Student Home Resources	-1.143	0.028	-41.412	0.000
(9) Socioeconomic Status	-0.564	0.095	-5.963	0.000
Root Mean Square Error	35.039			

Note. $p < .0$. $F(9,116) = 242,977$. $R^2 = 0.086$, $p = 0.09$.

Note. Dependent Variable: Plausible NAEP reading value #01 (literary).

The Plausible Value Regression was conducted using the Plausible Value NAEP reading value (01) literacy. Teacher instructional practices with positive z -scores were Teacher Professional Development ($z = 5.880$) and Teacher Best Practices ($z = 6.310$). There were six factors that showed a significant difference in the relationship between teachers' professional and instructional practices and student achievement at the middle school level: 1) Teacher Reading Instruction, 2) Teacher Professional Development, 3) Teacher Best Practices, 4) Teacher Varied Instruction, 5) Student Home Resources, and 6) Socioeconomic Status. Therefore, the null hypothesis is rejected, and the alternate hypothesis is accepted. For Hypothesis 1, there was a significant difference in the relationship between teachers' professional backgrounds and student reading achievement at the middle school level.

The researcher conducted a regression analysis to determine if a relationship existed between a teacher's professional training and instruction and student achievement.

Multiple regressions were done to determine the relationship between teacher professional training, instruction, and classroom practices impacting student achievement.

Again, the researcher rejected the null hypothesis for Hypothesis 1 and accepted the alternate. There was a statistical difference between the teacher's professional/instruction training and student reading achievement at the middle school level. When all predictors are observed, there is a significant predictor of student achievement.

Findings for Research Question 2

Research Question Two asked, "Is there a relationship between teacher classroom practice and eighth-grade students' reading achievement?" According to the Educational Opportunity Association (2015), best practices in education include a wide range of individual activities, policies, and programmatic approaches to achieve positive change in student attitudes or academic behaviors. To determine the relationship between teacher classroom best practices and student achievement, 23 variables were used in a factor analysis and principal component analysis (see Table 7).

Table 7

Structure Matrix Teacher Classroom Practice

Classroom Practice	Component				
	1	2	3	4	5
Teaching-change pace for some students	.891	.305	.009	.306	.277
Teaching-use different methods for some students	.887	.326	.010	.313	.285
Teaching-engage some students in diff activities	.876	.325	.027	.284	.272
Teaching-use other materials for some students	.861	.352	.016	.316	.292
Teaching-set diff standards for some students	.812	.247	-.003	.246	.219
Taught about procedural texts this year	.304	.754	-.002	.397	.321
Taught about argumentation/persuasion this year	.249	.752	.024	.367	.340
Taught about exposition this year	.221	.724	.010	.360	.355
Taught about literary nonfiction this year	.290	.723	.004	.442	.378
Taught about poetry this year	.253	.680	.007	.467	.330
Taught about fiction this year	.184	.537	.008	.502	.383

Done project about something read	.015	.015	.804	.010	-.005
Made presentation to class about something read	.011	.021	.801	.006	-.006
Conducted research for reading and writing projects	.010	.031	.759	-.003	-.010
How often Eng class: discuss something read	.004	-.007	.677	.023	.048
Talk with friends about what you read	.008	-.011	.657	-.014	.015
Students interpret meaning of passage	.277	.462	.011	.858	.484
Students question motives of characters	.265	.446	.010	.839	.452
Students identify main theme of passage	.280	.480	.004	.830	.448
Students summarize the passage	.286	.426	-.005	.715	.398
Emphasis on integrate/interpret when reading text	.268	.432	.015	.512	.890
Emphasis on critique/evaluate when reading text	.273	.469	.021	.482	.820
Emphasis on locate/recall when reading text	.231	.310	.001	.382	.752

Note. Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.

It was observed that the first five variables in the rotated component matrix aligned to teaching with strong factor loadings (i.e., range .812 to .891.) for Component 1. These five teaching variables were strongly related to each other: 1) varied instruction, 2) best practices, 3) self-regulation, 4) classroom practices, and 5) reading-focused strategies.

The explicit teaching of procedural texts, argumentation and persuasion, exposition, literary nonfiction, poetry, and fiction revealed high positive factor loading (i.e., range .537 to .754) for Component 2. Teacher practices that required students to complete projects and engage in conversations about reading, yielded positive loadings (i.e., range .677 to .804) for Component 3, suggesting a relationship with student reading achievement. Component 4 (i.e., range .715 to .858) and Component 5 (i.e., range .752 to .890) also showed strong factor loadings.

A correlational analysis was conducted to determine whether a relationship among the teaching variables existed. As shown in Table 8, below, there is a statistically significant (.713, $p < .05$) relationship between Teaching-Best Practices and Student Self-Regulation. Teaching-Best Practices produced significant relationships with Teaching-Varied Instruction and Teaching-Reading Professional Development. Lower relationships

were found between Teaching-Best Practices and Teachers-Professional Educational and Teaching-Undergraduate Education. The relationship between Teaching-Best Practices and Graduate Education was non-significant. Factor correlations between Teaching-Varied Instruction and Teaching-Instructional Practices displayed significant correlations.

A plausible value regression was conducted to determine the relationship between teacher classroom practices and test scores. The proficiency percentage of test scores from the reading assessments was correlated with teacher instructional practice items. For the 2013 assessment year, high correlations were found between teacher best practices and students who exhibited solid self-regulation.

Table 8

Correlations: Teacher Best Practices

		TR Best Practice Class	Self Reg Std	TR Var Instr	TR Instr Prac	TR Prof Ed	TR Read Prog Dev	Grad Educ	Undergra d Education
TR Best Practice Class	Pearson	1	.713**	.260**	.457**	.013**	.142**	.002	.044**
	Sig.(2tailed)		<.001	<.001	<.001	<.001	<.001	.446	<.001
	N	141691	141691	141691	141691	141691	141691	141691	141691
Self- Reg.	Pearson	.713**	1	.018**	.037**	-.005	.012**	-.032**	.004
	Sig.(2-tailed)	<.001		<.001	<.001	.072	<.001	<.001	.161
	N	141691	160423	141691	141691	141691	141691	141691	141691
TR Varied Instr	Pearson	.260**	.018**	1	.420**	.043**	.182**	.013**	.046**
	Sig.(2-tailed)	<.001	<.001		<.001	<.001	<.001	<.001	<.001
	N	141691	141691	151777	151777	151777	151777	151777	151777
TR Instr Pract	Pearson	.457**	.037**	.420**	1	.067**	.235**	.048**	.082**
	Sig.(2-tailed)	<.001	<.001	<.001		<.001	<.001	<.001	<.001
	N	141691	141691	151777	151777	151777	151777	151777	151777

A second plausible value regression analysis was used for the second level of the hierarchical regression process, using eight variables in the regression model to further predict reading achievement. The results revealed the presence of an association between three teaching variables having a significant relation to student achievement: Teachers-Classroom Practices, Professional Development, and Varied Instruction. Factors of Homes Resources, Student Self-Regulation, and National School Lunch eligibility were also significant. Overall, most of the predicted scores fell to the $p < .001$ range, showing a positive statistical significance on student achievement. The null hypothesis was rejected, and the alternate is accepted; there is a significant relationship between teacher classroom practice and student reading achievement.

A third plausible value regression was computed to assess the relationship between the seven teacher-instructional items and student self-regulation variables. Table 9 summarizes the results of the seven teacher instructional survey items: Teachers' Best Practices in Class, Teachers' Varied Instruction Teachers' Instructional Practice, Teachers' Professional Education, Teachers' Professional Development, Teachers' Professional Development in Reading, Graduate Education, and Undergraduate Education.

Table 9

Plausible Value Regression -Step Two

Parameter Name	Estimate	Standard Error	Z Score	$p > [z]$
Constant	273.325	3.309	82.603	0.000
Teach Class Pra	-0.171	0.063	-2.709	0.007
Teach Pro Dev	0.747	0.128	5.851	0.000
Undergrad Ed	0.028	0.042	0.658	0.510
Graduate Ed	-0.002	0.022	-0.089	0.929
Teach Instru Pr	0.050	0.053	0.962	0.341
Teach Varied In	-0.478	0.076	-6.3232	0.000
Home Resource	-1.132	0.032	-35.927	0.000

Self-Regulation	0.119	0.018	6.571	0.000
Natl Sch Lunch Prog Elig (6 cat)	-2.547	0.329	-7.753	0.000
Root Mean Square	34.926			

Note: $p < .0$

Note; $F(9,116) = 242,849$, $R^2 = 0.092$, $\beta = .09$

Note: Dependent Variable: Plausible NAEP Reading Value #01 (Literacy)

Findings for Research Question 3

Research Question Three asked, “Is there a significant relationship between teacher best practices and student achievement for any of the independent variables—race/ethnicity, gender, and socioeconomic status?” The relationship between teacher qualities and student achievement for the independent variables—gender, race/ethnicity, and socioeconomic status—were significant predictors of student reading achievement.

To determine the student’s socioeconomic status, the researcher used the NAEP variable National Lunch Program Eligibility. The assessment data had 141,676 observations after the elimination of values. For $\alpha = 0.05$, the overall test for the model was determined to be significant at $F(4,12) = 1074.38$, $p < .0001$.

Based on the R^2 value (0.106), the variables of gender and limited English proficiency in this model predicted 11% of the variance in the reading results. The negative unstandardized coefficients demonstrate that lower school lunch eligibility (-3.258) and fewer teachers employing the use of best teacher practices (-0.038) were not significant in the classroom, both pointing to lower predicted reading achievement.

An analysis of gender data revealed that gender (12.038) contributed to the model at $p < .000$, which indicated that girls could be predicted to achieve higher reading scores on the eighth grade NAEP reading assessment.

Self-Regulation and Home Resources

Factor analysis and regression analysis were conducted to examine the relationship between the factors of self-regulation (i.e., self-control and guidance) and home resources. To constitute the factor for self-regulation, the researcher loaded 13 variables from the dataset into SPSS: 1) Done a project about something read, 2) Made a presentation class about something read, 3) Conducted research for reading and writing projects, 4) Write long answers on reading tests, 5) Do English arts after school or tutoring program, 6) In class, read aloud, 7) In class, read silently, 8) Read for fun on own, 9) Reading is a favorite activity, 10) Talk with friends about what you read, 11) Learn a lot when reading books, 12) Use a computer to learn and practice vocabulary, 13) Use a computer to practice spelling/grammar. These variables had positive loadings for self-regulation showing a link to home resources, both of which had a statistically significant relationship with reading achievement (see Table 10).

Table 10

Factor Analysis - SES and Home Resources

Survey Statement	Component		
	1	2	3
Access to the Internet	.718	-.008	-.220
Clothes dryer just for your family	.697	.026	.075
Computer in home	.688	.206	-.278
More than one bathroom	.677	-.102	.158
Dishwasher	.638	-.086	.255
Your own bedroom	.527	-.011	.113
Parental education level (from 2 questions)	-.034	.994	-.009
Mother's education level	-.022	.894	.005
Father's education level	.023	.775	.156
Race/ethnicity (student reported)	-.027	.140	.713
Natl School Lunch Prog eligibility (6 Cat)	.113	-.003	.705

Note: Extraction Method Principal Component Analysis.

Note: Rotation Method: Promax with Kaiser Normalization, convergence in 5 iterations

SES and Home Resources

Using six of the home resource variables and the variables of parents' level of education (mother's, father's), the researcher conducted a factor analysis. The factor loadings for this analysis ranged from .527 to .718. Parent's education level (combined), mother's education level, and father's educational levels loaded at .994, .894, and .775, respectively, showing a close relationship between parental education and student reading achievement. Factors of having a dishwasher, more than one bedroom, race/ethnicity, and National School Lunch Program eligibility were associated with socioeconomic status.

Factors Impacting Student Performance

A Pearson Correlation analysis was conducted to investigate related factors which may impact student performance: student has limited English proficiency, ELL classification (2 categories), Individualized Education Plan, race/ethnicity, and home resources (see Table 11) Based on the data, most factor correlations revealed a significant relationship ($p < 0.001$).

Table 11

Correlations: Student Factors Impacting Achievement

		Does student have				
		Lim. Eng. Prof	ELL (2 cat.)	IEP (504)	Race/ethnicity	Resource Home
Lim. English proficiency	Pearson	1	.942**	.040**	-.265**	-.183**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001
	N	176260	176260	176260	176260	171809
ELL (2 categories)	Pearson	.942**	1	.057**	-.219**	-.165**
	Sig.	<.001		<.001	<.001	<.001

	(2-tailed)	N	176260	176270	176270	176270	171819
IEP (504)	Pearson		.040**	.057**	1	-.003	-.138**
	Sig. (2-tailed)		<.001	<.001		.179	<.001
	(2-tailed)	N	176260	176270	176270	176270	171819
Race/ethnicity	Pearson		-.265**	-.219**	-.003	1	.214**
	Sig. (2-tailed)		<.001	<.001	.179		<.001
	(2-tailed)	N	176260	176270	176270	176270	171819
Resource Home	Pearson		-.183**	-.165**	-.138**	.214**	1
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	
	(2-tailed)	N	171809	171819	171819	171819	171819

**Correlation is significant at the 0.01 level (2-tailed).

The correlation “Does the student have limited English proficiency” and “Student classified as ELL” -2 Categories” had a correlation of .942, a strong positive statistically significant relationship based on a sample of 176,260. Correlations of “Race with Resources/Home” produced a Pearson’s correlation of .214, a moderate positive relationship based on a sample of 171,819. Other factors produced low or negative relationships, except the correlation of “Students with IEP and Race” which was nonsignificant. Knowing that the relationship was significant, a t-test was conducted, and most factors’ significance ranged from modest to moderate.

Two plausible value regressions were computed to assess the relationships between 1) socioeconomic factors and gender (Table 12) and 2) socioeconomic factors and

race/ethnicity (see Table 13, on page 79). There were many significant correlations found in the data for gender and race/ethnicity.

Table 12

Plausible Value Regression-Gender

Parameter Name	Estimate	Standard Error	z Score	p > z
Constant	200.142	2.692	74.354	0.000
Natl School Lunch Prog eligibility (6 categories)	-3.258	0.381	-8.551	0.000
Does student have limited English proficiency	19.790	0.485	40.775	0.000
Gender	12.038	0.397	30.305	0.000
Teach Best Prac	-0.038	0.030	-1.288	0.198
Root Mean Square Error	34.669	--	--	--

Note: F (4,121) = 1074.38, R squared = 0.106 = 0.11

Note: p < 0

Note. Dependent Variable: Plausible NAEP reading value #02 (literary)

Note. AM Statistical Software Beta Version 0.06.03. (c) The American Institutes for Research and Jon Cohen

Hypothesis 3 was tested: There will be no statistical significance between teacher qualities on student achievement for any of the independent variables: race/ethnicity, gender, and socioeconomic status. The researcher rejected the null hypothesis and accepted the alternate hypotypotheses; there was a statistical significance between teacher qualities on student achievement for the independent variables: race/ethnicity, gender, and socioeconomic status.

Table 13*Plausible Value Regression—Race, and Gender*

Parameter Name	Estimate	Standard Error	z Score	p > z
Constant	262.786	1.439	182.615	0.000
Self-Regulation	-0.045	0.016	-2.776	0.006
Gender	12.816	0.368	34.786	0.000
Natl School Lunch Prog Eligibility (6 Categories)	-3.573	0.425	-8.402	0.000
Race/Ethnicity (From School Records)	-3.523	0.254	-13.851	0.000
Root Mean Square Error	35.800	--	--	--

Note. $P(F > F) = 0$. $F(4, 121) = 428.362$, $R^2 = 0.063$, $\Delta = 0.06$

Note. Dependent Variable: Plausible NAEP Reading Value #05 (Literary)

Summary of the Findings

Chapter 4 examined the results of the data analysis of teachers' instructional and professional practices and the relationship to eighth grade reading achievement. The first research question results asked if there is a significant statistical difference between the teacher's professional and instruction training and student achievement at the middle school level. Students of teachers who had taken relevant English language arts training and/or professional development aligned to language arts instruction had students who achieved higher test scores. Results show that teachers who utilized best teaching practices, explicit instruction, and varied methods of teaching produced a statistically significant predictability for student achievement. Students' home resources and socioeconomic status also showed statistical significance relating to student achievement.

The second research question explored the relationship between teacher classroom practice and reading achievement. The data analyses demonstrated that the factors of teaching-varied methods, best practices, student self-regulation, classroom practices, and reading-focused strategies held a statistically significant relationship to student reading

achievement. Explicit teaching practices produced factor loadings ranging from .677 to .804, suggesting a relationship with student achievement.

The third research question examined whether there was a significant relationship between teacher qualities and student reading achievement for the independent variables of race/ethnicity, gender, and socioeconomic status. A factor analysis conducted for subgroups revealed minority student status and gender were statistically significant indicators of reading achievement. Factors of race/ethnicity, gender, and socioeconomic status had a statistically significant relationship with student achievement.

For all three research questions, the researcher rejected the null hypothesis and accepted the alternate hypotheses. Three conclusions were drawn:

- There is a statistically significant relationship between a teacher's professional and instructional training and student reading achievement at the middle school level.
- There is a statistically significant relationship between a teacher's classroom practices and eighth grade reading achievement.
- There is a statistically significant relationship between teacher qualities on student reading achievement for the independent variables of race/ethnicity, gender, and socioeconomic status.

These conclusions are discussed in Chapter V; they form the basis of recommendations for practice to improve the reading achievement of struggling eighth grade readers.

CHAPTER 5 DISCUSSION AND RECOMMENDATIONS

The purpose of this study was to analyze the results of the 2013 NAEP Eighth Grade Reading Assessment to determine if factors relating to teacher pedagogy and student socioeconomic status, gender, and race/ethnicity influenced reading achievement for struggling eighth-grade students in public urban school environments.

Chapter 5 provides a synthesis of the findings from the data analysis. It explores the implications of the findings and their relationship to research literature. The limitations of the study are explained. The researcher makes recommendations for practice and future research.

Relationship to Prior Research

Bandura (1977) argues that the use of self-regulatory skills increases a student's feelings of self-efficacy regarding learning and performing well, which leads to increased motivation, effort, persistence, and learning. Bandura's theories were supported by the findings of this research study of struggling eighth-grade readers.

Vygotsky maintained that self-regulation is the ability to understand and manage your own behavior and reactions; furthermore, people learn to self-regulate through control of their own actions. Factors confirmed by this study impacting student achievement include student self-regulation. Self-regulating skills, including factors where students showed initiative, had a positive impact on academic achievement.

The research literature relevant to effective teacher practice and student achievement provides a tale of a nation struggling to provide a quality public education for its youth. Four decades ago, in 1983, *A Nation at Risk* was released, calling for drastic reform in education. Two decades ago, in 2002, the No Child Left Behind (NCLB) Act

mandated state testing in reading and mathematics. One component of NCLB was to ensure states employed “highly qualified” teachers. “Highly qualified” translated into a teacher who has passed the state teaching licensing examination, held a bachelor’s degree, and could demonstrate knowledge in the core subject they were teaching.

More than a decade ago, in 2009, the Obama Administration responded to the nation’s education crisis with the American Recovery and Reinvestment Act. The Act not only included ways to modernize infrastructure and enhance energy independence, but it also expanded educational opportunities for students. President Obama enacted the Every Student Succeeds Act (ESSA) with a commitment to ensure schools provide all students with a high-quality education. ESSA required annual testing of students and provided additional funding at the state level. This state funding was intended for the creation of literacy programs, assisting disadvantaged schools by providing additional resources. ESSA eliminated the system of Adequate Yearly Progress, a measure of school success, to allow states to use other assessment tools. ESSA is still the law of the land, and it requires annual testing of students in major content areas; it provides consideration for effective accommodations for students with disabilities.

Research from the National Assessment of Education Progress (NAEP) recognizes reading to be a critical 21st-century skill. Yet, despite four decades of education reform efforts, the national reading achievement of eighth-grade students has not significantly varied, with an average of just 32% of students performing at or above average proficiency. Eighth grade is a critical year, preparing students to enter high school and eventually to be college or career ready. Yet, at the middle school level, a significant amount of time is spent on test prep with inadequate time devoted to reading instruction or strategies. It is

increasingly relevant and urgent that teachers across the nation consume large amounts of instructional time dedicated solely to preparing students for testing. Furthermore, Zhao (2011) argues that in light of the digital revolution, mastery of state tests is not a true measure of the proficiency that students must achieve.

Several studies have shown a relationship between teachers' professional and instructional practices and student achievement. It is apparent that across the nation schools are committing a sizeable amount of their budgets, attention, and time to test preparation, even though test preparation is a content area focus. Test preparation as a genre, usually consisting of multi-choice questions, requires the reader to focus on the types of questions and respond to what is being asked. Writing responses may be required, so teachers must include instructional time for response writing and writing for other purposes. Therefore, the study's findings on teacher professional development and collaborative activities are consistent with the research trends.

This researcher's data analysis supports these findings. It confirms that male eighth-grade students as a cohort performed lower than female students. Black and Hispanic students performed significantly lower as a cohort than White students. This study confirms that gender and race/ethnicity are variables that are significantly statistically correlated to student achievement.

Topics for professional development and in-service training programs should be designed to meet the literacy needs of the middle school adolescent student. Training at any level is essential to support the knowledge and willingness of teachers to embed strategic comprehension strategies in their content area instruction to ensure students are

equipped with the reading skills, strategies, and techniques necessary for student success in college and careers.

Allington (2013) study the important factors when working with struggling students; aligned with the findings of that study, this study confirmed that the practice of guided reading combined with explicit instruction can assist to improve the reading abilities of struggling students. Results from his study noted a lack of expert teachers and paraprofessionals among the teaching profession, which was confirmed by this dissertation research data analysis. Consistent with Allington (2013), this researcher found that teachers limit the amount of time devoted during the day to individual reading and discussions; this is critical not only for the development of comprehension skills but also in serving as an environment for learning self-regulatory skills. Teachers must establish routines and structures for students to learn the skills, language, and appropriate behaviors in an academic setting.

Allison and Rehm (2007) examined the impact of the influx of immigrants entering the U.S. This unsurprisingly translated into a dramatic increase in the number of students who speak a native language other than English. They argued that educators must be prepared to interact, engage, and educate a multicultural, multilingual student population with diverse languages, cultures, and national origins. With the increasing diversity of students entering our nation's classrooms, teacher practice and instruction must include pedagogy that is sensitive and responsive to the development and education needs of adolescents from diverse backgrounds.

This study investigated variables impacting student achievement, including limited English language proficiency and classification as an English language learner. Both

factors were found to influence student achievement and to be statistically correlated to teacher practice ($p < 0.01$). Students' limited English proficiency correlated with home resources (-.183) and classification as an ELL (-.165).

The use of such specific instructional strategies is identified through the NAEP variables used in teacher responses and supported in the data analysis of this study. Teacher best practices as identified by NAEP include the explicit instruction of English reading genres; engaging students in academic discussions; providing time for students to read; teaching using different methods, materials, and standards for some students; engaging students in different activities; modeling of reading behaviors and strategies; maintaining high standards and expectations; establishing writing workshops; placing an emphasis on strategic reading comprehension strategies; and crafting effective assessments in different modalities. NAEP advises that this should be evidenced through data analysis; each of these practices has a statistically significant relationship with student achievement, as confirmed by the present study.

You et al. (2016) examined the relationship between Korean students' perceptions of teachers' motivational behavior and achievement. This had special significance as academic achievement is a factor in determining students' ability to apply for college in Korea. Results indicated that self-efficacy and intrinsic motivation were significant in the relationship between student perceptions of teacher motivational behavior and student achievement in math, English, and science. The teachers' level of motivation (i.e., praise and assistance) and students' academic self-efficacy were highly interrelated.

These findings indicate that when teachers challenge their students by placing emphasis on learning skills, positive student perception increases self-efficacy and intrinsic

motivation. Student achievement is thus impacted and improved when teachers question and challenge student responses in a thought-provoking manner. These results were confirmed by the current study.

Rosenshine (1986) examined teacher enthusiasm using two constructs: experienced enjoyment and expressive behaviors. Studies of teacher enthusiasm revealed a causal relationship between enthusiasm and student outcomes. Rosenshine (1986) found that teacher enthusiasm positively affected students and their levels of achievement and motivation. This relationship was confirmed by later studies on the reciprocal relationship between teacher enthusiasm and student achievement (Keller et al., 2013; Patrick et al., 2000). Based on the teachers' delivery methods in the classroom, how students perceive their teachers can have a powerful outcome on student achievement and performance. This study is confirmed by the results of the current study which found that teacher practice and affect can positively influence student achievement. The data presented here indirectly speaks to the data on teacher enthusiasm; enthusiasm was not a variable in the raw NAEPEX data fields and could not be included in the initial dataset. Upon further research, teacher enthusiasm and teacher motivation could be included in an intense study of teacher characteristics.

The 2000 Fast Response Survey System (NCES, 2000) was designed to measure the change in teacher practices and qualifications, with the aim of creating a national teaching profile with information that could be used for reporting national educational data quickly. Teacher education, teacher participation in professional development and collaborative activities, and teachers' feelings pertaining to preparedness became the standard of measure for teachers. Today, data from the survey is used to inform

Congressional reports, subcommittee testimonies, and state and local education officials. The survey established that the type of educational degree teachers held matters. Today, all teachers hold a bachelor's degree and 44% hold a master's degree. This data is supported by NAEP data, which shows that professional development on state and district curriculum performance standards continued to be a major activity. This researcher has also shown that teacher professional development influences student achievement.

The National Assessment of Educational Progress (NAEP) now provides national data on student achievement broken down by demographic characteristics, group-level instructional experiences, and school environment factors. NAEP data provides an accurate picture of student performance using a nationally representative sample of students as well as data for individual states and districts participating in the Trial Urban District Assessment (NAEP, 2022).

Implications of the Findings

The current study was exploratory, as researchers have not yet thoroughly established the relationships between teacher instructional practice and student reading achievement. In this quantitative study, the researcher examined how teachers' professional and instructional practices were linked to the reading achievement of eighth grade struggling students in public schools. The outcomes of this study exist in the context of the research literature on the relationship between teacher practice and reading achievement; this study reinforces the need for more work to be done in preparing students to be proficient readers ready for college and career success.

The research design used a hierarchical regression process with nine dependent plausible variables constructed from composite values found in the 2013 NAEP reading

assessment dataset to determine which factors were statistically significant predictors of student achievement in eighth grade. Overall, this study's findings support the hypothesis that there is a significant relationship between teachers' professional and instructional practices and the reading achievement of struggling eighth grade students.

Teachers require opportunities for professional training and support in strategic instructional practices if they are to be expected to use these strategies in their practice. There was a significant relationship between teacher best practices, varied instruction, instructional practices, socioeconomic status, home resources, and self-regulation. This research adds to the existing body of research by providing an understanding of how aspects of teacher best practices, student self-regulation, and socioeconomic status impact student reading achievement. Similarly, Willingham (2012) demonstrated correlations between socioeconomic status and academic achievement. In recent research, there is an inverse relationship between the absence of books at home and reading proficiency, attributed to a lack of resources.

After analyzing the reading achievement data related to teacher professional and instructional practices, the researcher identified many predictors of achievement. These factors were the teacher's educational background, instructional practices, classroom practices, and professional development. Teachers who held specialized degrees (e.g., special education, TESOL, and reading specialists) showed a statistically significant relationship to student achievement. As college students prepare to enter the teaching profession and colleges create or reimagine teacher training programs, career choice should be explored in light of this data before students choose their final major.

The factor Teacher-Varied Instruction was created from five intervention variables to examine the instructional teaching strategies typically utilized to assist the struggling student. Varied instructional practices were a significant influence on the overall reading achievement of the struggling student. Strategic instruction, differentiated instruction, and varied instructional practices are effective and should be utilized by middle school content-level teachers as a practice to improve student achievement. An important caveat is that teachers require training and support in strategic instructional practices if they are to incorporate them into their toolkits.

Teacher best practices were another aspect of teacher classroom practices; they included students being given time to read books in class, to read aloud, and to discuss books. Students must be required to interpret, explain, question, summarize, and write about their reading. Teachers should place an emphasis on reading skills—locating, critiquing, and evaluating text. Each of these factors positively influences the reading achievement of students, indicating the need for teachers to plan lessons that include as many of these practices in the daily routine of the classroom as possible. Based on the analysis of the data, the following conclusions are also supported by the findings of this study:

1. Students' home resources were a positive statistically significant predictor of reading achievement.
2. Students with self-regulation skills exhibit greater achievement levels in reading.
3. Socio-economic status was a significant predictor of reading achievement for middle school students.

4. The professional development of teachers, in general, was significant and a stronger positive statistical relationship occurred when professional development was tied to reading instruction, assessment, and language arts instruction.

Limitations of the Study

There are several limitations to this study. First, this study examined the relationship between teachers' professional and instructional practices using the survey items on the NAEP teacher and student survey for the 2013 NAEP Reading Assessment year. There may be discrepancies between perceived and actual practices, as well as definitional misunderstandings. Second, the restricted dataset does not provide any background information, guidance, or evidence of the relationships between reading assessment and student thoughts; this leaves out student voice and perception. Third, survey items were closed-ended and may not have fully captured the responses of the teachers with regard to teaching practice. These statements produced limited variables for analysis on the NAEP Reading Assessment. Suggestions for additional variables to be included are attendance, teacher enthusiasm, classroom management style, professional development for reading instruction, remediation and fluency, and curriculum mandates.

This study utilized data from the 2013 NAEP Reading Assessment, as a more recent dataset was not available. As this research was conducted in 2023 and the world experienced a global pandemic, this data is not only old but may be less relevant or on target than more recent, but unavailable, testing data.

Furthermore, since the 2013 test administration, NAEP has modified its testing protocols and created a digital assessment; this digitally based reading assessment was

designed to keep pace with the new generation of classroom environments in which technology has become a part of students' learning. Passages and questions that had been previously administered through pencil and paper were adapted to fit a tablet screen. This later data may provide a more accurate reflection of the status of teaching and learning in reading. Enhancements made to NAEP testing administration and the release of current data will provide more up-to-date data on teaching practices, achievement gaps, current research topics, and trends in education.

Recommendations for Future Practice

The results of this study provide several implications for future practice in increasing the reading achievement for students in public school settings who are not meeting grade-level standards. Teacher best practices indicate a statistically significant influence on student reading achievement, so this is a high-leverage area to explore. The results suggest the efficacy of developing a strategic professional development approach for schools and districts in developing reading instruction, content area literacy, reading assessment and problem identification, remedial reading intervention, and training in direct instruction. Educational stakeholders must hold policymakers accountable to develop effective reading programs across the nation to transform lives and expand the opportunities for our lowest-performing students and their schools. Additional recommendations include:

1. Exploring psychological and instructional factors that affect student self-regulation, motivation, and self-efficacy in reading at the middle school level.
2. Providing professional development for teachers on strengthening the characteristics of their instruction.
3. Facilitating development sessions with teachers on unpacking the skills for

effective teaching and leadership.

4. Offering targeted coaching and mentoring to teachers with preparatory training that includes the teaching of English language arts for middle school student experiences.
5. At the undergraduate and/or graduate levels, the state should require teacher licensing candidates to take six or nine educational credits in reading instruction, diagnosis, and remediation prior to state certification. These credits may be offered at a reduced packaged rate as an incentive for student study.
6. Prioritizing professional development sessions to explore topics relevant to the education of multilingual, multicultural adolescent students.
7. Establish in school communities a culture of collaboration, teamwork, and professional activities to ensure middle school teachers feel confident in teaching reading comprehension strategies across the content areas.

Recommendations for Future Research

Consideration should be given to using sample populations of eighth-grade students and their teachers across the nation. NAEP 2013 data clearly showed that Black students had an average score that was 25 points lower than White students; similarly, Hispanic students scored on average 20 points lower than White Students. Female students have an average score that was higher by 10 points than male students; much is written on strategies to improve the reading levels of minority students, especially Black boys. This researcher recommends exploring the types of questions and corresponding sub-group responses to improve instruction. Further research should incorporate the instructional strategies specific to these groups and the varied interventions required for improvement.

Based on free/reduced-price school lunch eligibility, eligible students had an average score that was 24 points lower than students who were not eligible for free/reduced-price school lunches; future research should create a separate study to further explore factors affecting school lunch eligibility, poverty, and achievement. A study should investigate additional methods of providing home resources such as grade-appropriate books, technology, and other supplies to the neediest students. School and federal programs offering computers, books, supplies, financial resources, and other educational materials should be closely monitored to ensure those resources also reach those intended.

The achievement gap data has remained relatively unchanged since 1998. When it comes to the achievement gap in education, Black and Hispanic students tend to perform lower on reading assessments than White students. The consistently low achievement of these sub-groups has far-reaching implications such as perpetuating generational cycles of poverty for minority students. Additional recommendations for further research include but are not limited to:

1. Review and revise the NAEP Teacher Survey responses by teacher license/certification (ELL teachers, special education teachers, content license area) to determine the relationship between survey responses and test scores specific to student special populations.
2. Include factors of attendance, student self-regulation, teacher enthusiasm, and teacher motivation in NAEP data sets.
3. Conduct a correlation analysis using student growth, rather than achievement levels (i.e., performance) for subgroups in this study.
4. Include perspectives of middle school content area teachers on taking the responsibility of addressing student reading behaviors and delivering content-

based instruction.

Conclusion

The primary goal of this non-experimental quantitative study was to investigate factors of teacher practice impacting eighth-grade students struggling with reading achievement. These factors and problems of practice affect struggling students by restricting their ability to improve based on the limitations of their teachers. Students struggle with reading comprehension for many reasons: limited exposure to books; problems stemming from hearing, sight, and speech impairments; and poor phonemic awareness. These impairments are often distinguished by race/ethnicity, socio-economic status, and parental education. Wealthy parents are generally more highly educated, and they tend to immerse their children in literacy from birth, creating a platform for building knowledge. Those most affected are students of color, boys, and minority students with limited income and resources at home. All children deserve quality instruction and quality education, provided by knowledgeable and trained teachers of English language arts.

This study examined four categorical indicators to determine their statistical relationships to student achievement. Teachers fully utilizing their best practices are a strong indicator of student achievement. The use of varied instruction is a positive predictor for student achievement (e.g., changing the pace, using different methods, engaging some students in different activities, using other materials, and using different standards for some students). Frequent use of professional development designed and relevant to English language arts and reading instruction showed high correlations with student achievement.

Middle school teachers must consider ways to embed literacy skills within their content instruction to impact their students' performance levels. The education and experience of teachers positively impact student achievement. Teachers must be cognizant

of the effects of socioeconomic status, race/ethnicity, and gender on their instructional practice and create instructional plans and outcomes that address these factors. Higher student achievement results from a combination of teachers with graduate-level English language arts degrees; professional development in instructional reading, assessment, and remediation of reading; and access to home resources that promote the effective use of reading skills and self-regulation.

According to Allington (2011), at least one in four middle school students struggle with grade-level textbooks assigned to them. This issue has persisted for decades with no positive improvement. According to NAEP reading assessments, proficient and advanced students can comprehend complex texts and make informed decisions, However, most eighth-grade students perform at the Basic or Below Basic performance levels, with no clear understanding of their actual performance or challenges. The poor reading achievement of students has serious implications for their future success in school, the workplace, and society.

Improving public education should not be a choice but a responsibility of both the public and the United States government. While the U.S. Department of Education has implemented policies and legislation to enhance equality in education, many students are still not achieving proficiency or benefiting from the services provided by these laws.

Teacher education and teacher compensation represent a significant public investment in our nation, yet there is little research to guide decision-making around educating teachers or providing ongoing professional development. Numerous studies have examined the impact of teacher characteristics on teacher effectiveness and student achievement. However, teacher characteristics vary depending on the school level and

other factors. Measurable and policy-relevant indicators of teacher professional and instructional practices include teacher experience, preparation programs and degrees, certification, coursework, and test scores; this is information that NAEP does not provide but should.

Teaching quality plays a crucial role. In fact, teacher quality is the most important school-related factor affecting student achievement (Rice, 2003). Several factors such as home environment, resources, school environment, gender, race, and socioeconomic status have been analyzed, and their relative impact on students varies. Nonetheless, the most significant factor affecting the students' ultimate success is the teacher. Thus, administrators must focus on supporting teachers to improve instructional practice to improve student reading proficiency.

Appendix A

Research Ethics Training Certificate



FHI 360

certifies that

Deon LaVigne-Jones

has completed the

RESEARCH ETHICS TRAINING CURRICULUM

March 31, 2019

Appendix B

St. John's IRB Approval Notice

Date: 3-9-2023

IRB #: IRB-FY2023-136

Title: INSTRUCTIONAL PRACTICES IMPACTING STRUGGLING EIGHTH GRADERS' READING
ACHIEVEMENT: A NON-EXPERIMENTAL
QUANTITATIVE ANALYSIS

Creation Date: 11-18-2022 End Date:

Status: Approved

Principal Investigator: Deon LaVigne-Jones

Review Board: St John's University Institutional Review

Board Sponsor:

Study History

Submission Type Initial

Review Type Exempt

Decision Exempt

Key Study Contacts

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Member Anthony Annunziato

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Initial Submission

General Information

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