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THE INTERSECTION OF SCHOOL-BASED LEADERSHIP PRACTICES AND SCHOOL GRADES IN THE STATE OF FLORIDA

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By

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DEDICATION

First and foremost, I would like to recognize Jesus Christ, my Lord and Savior, who makes all things possible, even a doctorate degree. I would like to recognize my husband, Michael, who has been my partner and steady rock throughout this journey. I would like to thank Coni, Ryan, Frank, and Antoinette for their help and prayers over the last few years.

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Abstract

The purpose of this non-experimental, quantitative study was to examine to what degree 12 self-reported leadership behaviors were associated with and predictive of school grades in the state of Florida. The study participant sample was exclusively comprised of educational leaders from elementary schools located in Florida. In this descriptive study, elementary principals were surveyed to determine the frequency of leadership behaviors (independent variable) and school grades (dependent variable). Two research questions and hypotheses were posed to address the study's research problem. Research question one utilized a simple linear regression to assess the predictive variable of the overall leadership practices for the school grade. Multiple linear regressions were utilized to analyze the associations of the 12 leadership practices to predict school grade in research question two. The null hypothesis was accepted for the variable overall leadership practices for the dependent variable of elementary school grades. The leadership practice of observation of classroom instruction was the most robust leadership practice that manifested statistical significance.

Keywords: principal, instructional leadership, school grades

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I. INTRODUCTION

Educational accountability comes in many shapes and sizes. Regardless of whether accountability originates from the federal level or the local level, it comes to fruition at the school level. The emphasis on educational accountability at the school level leaves the principal, the most recognized leader of each school, in a demanding role. Increased accountability has been an impetus to the evolution of the principal's role from manager to instructional leader. Principals are expected to be instructional leaders, human relations experts, public relation specialists, mediators for stakeholders, and authorities of legal and contractual obligations. The competing demands on principals necessitate understanding what actions or behaviors will equip principals to affect their school positively. The focus of this non-experimental, quantitative study was to identify principal leadership practices that are predictive of school grades in the state of Florida.

Background

In 1965, President Lyndon B. Johnson signed the Elementary and Secondary Education Act (ESEA), thereby providing additional resources for vulnerable students through grants, special educational centers, and scholarships to improve elementary and secondary education quality (U.S. Department of Education, n.d.). The National Commission on Excellence of Education (1983) published *A Nation at Risk: The Imperative for Educational Reform,* which sparked a major drive for increased educational accountability. The *No Child Left Behind Act*

(NCLB) in 2001 was a reauthorization of ESEA (*No Child Left Behind Act of 2001*, 2002). NCLB continued a noticeable era of increased educational accountability with particular attention on achievement gaps and transparency. In 2015, *Every Student Succeeds Act* (ESSA) replaced NCLB, and accountability continued to be a major focus of public education (U.S. Department of Education (n.d.). ESSA requirements mandated student outcomes to be transparent and easy to understand to the public. Per ESSA, each school in Florida receives an annual report card. The annual report card links principal performance to student outcomes in the form of a letter grade of A to F. Principals are under pressure to meet accountability expectations because competing demands and responsibilities limit the tasks principals can accomplish. Principals face challenges to allocate limited time and attention across multiple responsibilities.

The central purpose of this study is to identify and examine principal leadership practices as they relate to school grades. Leithwood, Louis, Anderson, and Wahlstrom (2004) reported, "School leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school" (p. 5). Leithwood, Harris, and Hopkins (2008) claimed, "Almost all successful leaders draw on the same repertoire of basic leadership practices" (p.30). The fundamental leadership practices described by Leithwood et al. (2008) included "building vison and setting directions, understanding and developing people, redesigning the organization, and managing the teaching and learning programme" (p. 30).

Day et al. (2010) extended Leithwood and colleague's (2008) research on the four core leadership practices by identifying eight key dimensions of successful leadership that center on student learning, wellbeing, and achievement. Day et al. proposed that successful leaders define vision and values, improve teaching and learning conditions, restructure the organization, enrich

the curriculum, enhance teacher quality, improve the quality of teaching and learning, build internal collaboration, and develop strong relationships inside, as well as outside of the school.

In 2011, the Florida Department of Education (The Florida Leadership Standards, 2020) adopted 10 Florida leadership standards that form the core characteristics for effective school administrators in Florida. The 10 core standards have been categorized into four domains: student achievement, instructional leadership, organizational leadership, and professional and ethical behavior. In the student achievement domain, effective principals determine student learning goals and prioritize a learning organization focused on student achievement. In the instructional leadership domain, effective school leaders use instructional leadership to implement an effective instructional framework, retain an effective faculty and staff, and maintain a learning environment focused on improving all student populations. In the third domain, organizational leadership, effective school leaders use organizational leadership to monitor data-driven decision-making processes based on vision, mission, and school improvement priorities. Within the organizational leadership domain, effective principals nurture leadership within the organization, maximize the use of school resources, and practice two-way communication skills to accomplish school goals. In the final domain of professional and ethical behavior, the effective school leader exhibits personal and professional conduct consistent with being a leader. In essence, Florida principals are expected to maintain high student achievement for all students while effectively and efficiently managing a school.

School principals must continuously balance school needs, district mandates, state reform, and federal policy. As demands are ever-increasing on school leadership, principals must make efficient and effective choices for their schools. Principals must choose and operationalize the right leadership practices that will ultimately ensure success of the school.

Statement of the Problem

As the research on school-based leadership continues to expand, the primary focus of schools remains teaching and learning. A review of research studies on effective school practices identified instructional leadership as a key component of successful schools. Most of the published research on instructional leadership in the United States was written prior to the 1990s. A gap exists in the knowledge of how instructional leadership is used by principals today. Principal effectiveness research will be enhanced when principals understand the essential instructional leadership behaviors that effect school grades.

Purpose of the Study

The purpose of this non-experimental, quantitative study was to examine to what degree 12 self-reported leadership behaviors were associated with and predictive of school grades in the state of Florida. The 12 self-reported leadership behaviors originated within a rotating module of the *Principal Questionnaire National Teacher and Principal Survey 2017-18 School Year* currently found in the public domain. The identified 12 leadership behaviors were examined and compared with school grades to determine associations and predictive characteristics.

Theoretical Framework

Leadership is essential in successful schools. "School leadership is second only to classroom teaching as an influence on pupil learning" (Leithwood et al., 2008, p. 4). As federal educational accountability mandates increased public attention on schools, the role of the principal came under scrutiny. During the 1980s, principals of effective schools were perceived as strong instructional leaders (Bossert et al., 1982). Understanding what principals did to promote successful schools and student achievement was essential to improving schools. The theoretical framework for this study on leadership behaviors is the principal's role within

instructional leadership theory. The instructional leadership framework, as defined by Hallinger et al. (1983), was used as the theoretical framework in this study. The instructional framework by Hallinger et al. comprises three dimensions: defining the school mission, managing the instructional program, and promoting a positive learning climate. Hallinger et al.'s instructional leadership framework examined the actions of principals; the framework is germane to the purpose of this study.

The roots of instructional leadership began within the effective schools' movement. The principal's role evolved with the emergence of standards-based accountability (Graczewski et al., 2009). As the responsibility for student achievement redefined the role of the principal, instructional leadership became the new framework to meet state and federal accountability demands.

Using school effectiveness factors, Hallinger et al. (1983) developed an instructional leadership framework. The instructional leadership framework consisted of three dimensions. Hallinger et al. identified the three dimensions of instructional leadership as defining the school mission, managing the instructional program, and promoting a positive learning climate. The researchers also identified multiple corresponding job functions in each dimension. Hallinger et al. posited that the principal's role within the dimension of defining the school mission included framing school goals and communicating school goals. The principal needed to identify a few school-wide goals that addressed student achievement, and then communicate the goals to stakeholders formally and informally.

The principal's role in the second dimension, managing the instructional program, pertained to areas related to curriculum and instruction. The principal's role in managing the instructional program dimension included three job functions identified as supervising and

evaluating instruction, coordinating the curricula, and monitoring student progress. The principal's job included ensuring that classroom practices reflected the school goals; ensuring that curricula content coordinated within the classroom and within achievement tests; and ensuring that formative and summative assessment results were used to plan next steps (Hallinger et al., 1983).

In the third dimension, promoting a positive school learning climate, the principal's role focused on communicating expectations to students and teachers through the school's policies and practices. According to Hallinger et al. (1983), there were six job functions within this dimension. The principal's job functions included protecting instructional time, promoting professional development, maintaining high visibility, providing incentives for teachers, enforcing academic standards, and providing incentives for students.

The role of the principal, as conceptualized by Hallinger et al. (1983), included direct and indirect activities. The principal's role in direct activities entailed working with individual teachers or students. Hallinger et al. posited, that direct activities are less effective, because the activities are time consuming, require constant supervision, and require a high level of pedagogical skill. On the other hand, indirect activities require less direct supervision. The principal uses policy and practice to influence the work structure of the school and to shape teacher and student behavior without the need of direct supervision. However, indirect activities must be monitored to ensure implementation. Hallinger and Murphy (1985) noted that principals must find a balance between direct and indirect activities. "This balance will depend on a variety of contextual factors that constrain administrative behaviors, such as staff expertise and experiences, nature of the student body, school size, density of administrative staff, and community and superordinate expectations" (Hallinger & Murphy, 1985, p. 221).

After developing the instructional leadership framework, Hallinger and Murphy (1985) developed an instrument to assess instructional leadership behaviors of principals. The instrument, the Principal Instructional Management Rating Scale (PIMRS), included 11 subscales and 71 questions. The scale was administered to principals, their school staff, and district level supervisors. The researchers used the data to form an instructional leadership profile for each principal.

Significance of the Study

In the state of Florida, principals are accountable for student outcomes. This study contributes to the body of knowledge regarding the relationship between principal instructional leadership behaviors and school grades. Determining the relationships between principal behaviors and school grades can inform principal leadership development programs and improve student achievement.

Overview of Methodology

Two research questions and hypotheses were developed to address the study's topic and purpose. The following represents the study's research questions and hypotheses:

Primary Research Questions

1. To what degree are overall select self-reported leadership practices associated with and predictive of school grades?
2. Of the 12 leadership practices, which is most associated with and predictive of elementary school grades?

Hypotheses

H_0: There is no statistically significant relationship between overall select self-reported leadership practices and school grades.

H_1: There is a statistically significant relationship between overall selected self-reported leadership practices and school grades.

H_0: The association between leadership practice and elementary school grades will not be statistically significant.

H_2: The association between leadership practices and elementary school grades will be statistically significant.

Research Design and Study Procedures

The research design was broadly quantitative and non-experimental by definition and more specifically survey research by methodology. The survey questions used in this study came from a rotating module of the National Teacher and Principal Survey 2017-18, specifically the Principal Questionnaire. The participant sample used in the study was considered non-probability and convenient/purposive in nature. A survey participant response rate of at least 50% was anticipated. If the intended threshold response rate of at least 50% was not reached in the first round of electronic requests, a second and final electronic request was made with study participants.

The study's participant sample was considered non-probability by definition and convenient/purposive in nature. The participant sample was from a list of personnel who served as elementary principals in the state of Florida during the year 2018-2019. The researcher obtained the 2018-2019 Survey 2 list of administrative positions and schools from the Bureau of PK-20 Educational Reporting and Accessibility (PERA). The demographic information in the file included school district numbers, school district names, school numbers, school names, school type descriptions, grade combinations, staff email addresses, first names, last names, and job titles. This data file was filtered by first job title (principal), second by school type

description (elementary), third by grade combination (PK - 5 and K - 5), fourth by schools with a school grade designation of A–F, and finally by inclusion within the Survey 2 file prepared by PERA containing 2020-2021 elementary principals in the state of Florida. Data from state database were used to determine school grades in 2018-2019. The data resulted in a sample population of 841 principals and schools.

Data Analysis

Preliminary Analysis

Prior to addressing the analysis of findings related to research questions and hypotheses posed in the study, preliminary analyses were conducted. Specifically, survey response rate, key participant demographic information, missing survey data, and internal consistency (reliability) of participant response were addressed in the preliminary analyses of the study's data set.

Missing data were analyzed using descriptive statistical techniques. Frequencies and percentages comprised the primary statistical methods of analysis and interpretation. The internal consistency or reliability of participant to the survey items were addressed through the application of the Cronbach's alpha (α) test statistic. The statistical significance of α was assessed through the F test. The value of $p < .05$ was considered statistically significant. The study's essential demographic information included the principal's years of service, age, gender, and highest degree earned. The demographic data were assessed using descriptive statistical techniques. The mean, standard deviation, frequency counts (n), and percentages (%) represented the primary methods of descriptive analyses.

Research questions and individual survey items were addressed initially, using both descriptive and inferential statistical techniques. Measures of central tendency (mean scores),

variability (standard deviations), and percentages represented the primary descriptive statistical techniques used. The single sample *t* test represented the inferential statistical technique by which respective mean score comparison with the Likert-scale null value was evaluated for statistical significance. The threshold value for statistical significance was $p < .05$. The magnitude of effect (effect size) was assessed using Cohen's *d*. Cohen's conventions represented the guideline for the interpretation of all effect size values in the research questions of the study.

Research questions were more specifically associative and predictive in nature, using one independent predictor variable (research question one) and multiple independent predictor variables (research question two). As such, the Pearson product-moment correlation coefficient was used to assess the mathematical relationships of respective variables inherent in the research questions. Mathematical relationships manifesting *p*-values of < .05 were considered statistically significant. Simple linear regression was utilized to assess the predictive aspect of the first research question, and multiple linear regression was utilized to address research question two.

Predictive model fitness was assessed in both research questions through ANOVA table *F*-values. ANOVA values of $p < .05$ were indicative of predictive model fitness. R^2 values represented the basis for the evaluation of predictive effect. The formula $R^2 / 1 - R^2$ was used to calculate the effect size of the predictive model. Values of 0.35 or greater were considered large predictive effect sizes. The statistical significance of predictive effect was interpreted through the respective slope (*t*) values of independent predictor variables. Assumptions associated with predictive modeling were assessed through both visual and statistical methods.

Limitations

There were several limitations to this study. First, this study was limited to elementary principals in the state of Florida. Additional study limitations included only schools with school grade designations of A – F. Generalizability was another limitation. The participant sampling was convenient/purposive. The results of the study may not be generalizable to elementary or secondary school principals in Florida.

Delimitations

This study was quantitative, non-experimental survey research. The study population consisted of elementary principals in schools designated with grades PK-5 and K-5 in the state of Florida. Further population delimitations included using participants who were elementary principals during the school years 2018-2019 and 2020-2021.

Definitions of Key Terms

- **principal**: The school-based administrator appointed to oversee a school and to provide primary leadership within a public school in the United States.
- **instructional leadership**: A leadership model in which the role of the principal focuses on three dimensions: defining the school's mission, managing the instructional program, and promoting a positive school learning climate (Hallinger et al., 1983).
- **school grade**: In the state of Florida, each school receives an annual school grade designation of A – F. The school grade consists of up to eleven components depending on the school level. To determine the school grade, the total points in each component are added together then divided by the total number of possible points to determine the percentage of points earned (Florida Department of Education, 2019).

Summary

Principal accountability has increased since the *A Nation at Risk: The Imperative for Educational Reform* report was published in 1983. As federal policy has expanded, the principal's role has evolved from manager to instructional leader. Principals must know what actions to leverage to increase student achievement. In Florida, principals are expected to use instructional leadership practices to affect student achievement. Examining the frequency of instructional leadership behaviors to determine the correlation and predictive effect size to school grades in Florida has the potential to inform principal leadership practice.

II. REVIEW OF LITERATURE

The purpose of this quantitative study was to examine to what degree 12 self-reported leadership behaviors of principals were associated with and predictive of school grades in the state of Florida. Through a review of literature, principal leadership practices, instructional leadership practices, principal effect on student achievement through instructional leadership practices, and current Florida school-based accountability mandates were examined. Eighteen studies were reviewed. A summary of meta-analyses, as well as primary sources pertaining to principal leadership practices, has been provided.

Principal Leadership Practices

Accountability at the school level has increased greatly over the years. With the expanded emphasis in school-based accountability during the last 30 years, research concerning school-based leadership practices also increased. Researchers sought the perfect set of variables for producing school-level success, examining the role of the principal to determine the daily activities of principals and the reasons principals choose certain practices.

Leithwood et al. (2008) searched to understand the value of school leadership. They asserted "School leadership is second only to classroom teaching as an influence on pupil learning" (p. 28). This claim, distilled from several international empirical studies, is one of seven strong claims concerning leadership at the school level put forth by Leithwood et al.

The second claim about successful school leadership proposed by Leithwood et al. (2008) was "[a]lmost all successful leaders draw on the same repertoire of basic leadership practices" (p. 30). The fundamental leadership practices described by the researchers included "building vison and setting directions, understanding and developing people, redesigning the organization, and managing the teaching and learning programme" (Leithwood et al., 2008, p. 30). The researchers noted that leaders do not engage in the four categories of practices daily. Instead, the four categorical practices, and their accompanying specific behavior sets, established a powerful leadership framework for principals.

The leadership practices identified by Leithwood et al. (2008) were nearly identical to the leadership practices identified by Hallinger et al. (1983). Both studies identified defining the school mission, managing the instructional program, and promoting a positive learning climate, as critical practices of a framework for school leadership. Leithwood et al. identified an additional category of leadership practices, which included understanding and developing people.

The Wallace Foundation (2013) produced a *Wallace Perspective* entitled "The School Principal as Leader: Guiding Schools to Better Teaching and Learning." The researchers who created the *Wallace Perspective* examined more than 70 research reports, several funded projects throughout 28 states, and other Wallace Foundation publications on leadership to determine the practices of effective principals. Through an analysis of the research reports, projects, and publications, the researchers identified five key practices that effective principals perform well. These five practices were shaping a vision of academic success for all students; creating a climate hospitable to education; cultivating leadership in others; improving instruction; and managing people, data, and processes to foster school improvement. The experts at the Wallace

Foundation suggested that principals needed to evolve beyond the role of manager to the role of leader. The investigators at the Wallace Foundation further noted that individual school variables have small effects on learning; however, "the real payoff comes when the individual variables combine to reach critical mass" (p. 5). The principal has been tasked with creating the conditions necessary to improve the capacities of the school. The three instructional leadership behaviors identified by Hallinger et al. (1983), defining school mission; managing the instructional program; and promoting a positive learning climate; overlapped with the five key leadership practices of principals offered by the Wallace Foundation. Cultivating leadership in others and managing people, data, and processes to foster school improvement were the two key practices that did not overlap within the two studies.

Goldring, Huff, May, and Camburn (2008) examined school context and individual characteristics as influences of principal practice in a quantitative study. The researchers sought answers to three questions. First, how did principals allocate their time? Second, how did different contexts cause principals to emphasize different responsibilities? Third, how did individual attributes affect a principal's allocation of time? Goldring et al. examined the methods of time allocation used by 46 principals from one school district. An end-of-day (EOD) web log was used to collect data for six consecutive days within a two-week period. Using the EOD instrument, the researchers examined nine leadership responsibilities of the principals:

- building operations: schedules, space operations, building maintenance, vendors;
- finances and financial support for the school: budgets, budget reports, seeking grants, managing contracts;
- community or parent relations: formal meetings and information interactions;
- school district functions;

- student affairs: attendance, discipline, counseling, hall/cafeteria monitoring;
- personnel issues: recruiting, hiring, supervising, evaluating, problem solving;
- planning/setting goals: school improvement planning, developing goals;
- instructional leadership: monitoring/observing instructions, school restructuring or reform, supporting teachers' professional development, analyzing student data or work, modeling instructional practices, teaching a class;
- professional growth: formal professional development, attending classes at a college/university, reading books or articles (Goldring et al., 2008, p. 340).

In addition to the EOD instrument, Goldring et al. (2008) used survey data and demographical data to examine principal characteristics and school context. The principal survey examined individual attributes of principals, and the teacher survey measured student engagement and teacher academic press. School demographical contextual measures included percentage of disadvantaged students, number of students, and teachers' average number of years teaching.

Goldring et al. (2008) posited that the data from the EOD instrument identified three distinct groupings of principals in the sample population. The researchers used the EOD instrument data to group the principals according to how the principals distributed their daily leadership responsibilities. Eclectic principals tended to spend an average of 7.2 hours per week on personnel issues and an average of 6.5 hours per week on student affairs. The principals grouped as instructional leaders tended to spend on average 13.4 hours per week on instructional leadership, an average of 5.7 hours per week on community/parent relations, and an average of 9.8 hours per week on student affairs. Student-centered leaders tended to spend an average 19.6 hours per week on student affairs and an average of 6.1 hours per week on personnel issues. In

this population sample, Goldring et al. most often categorized principals in the instructional leadership group based on their use of time.

Goldring et al. (2008) examined principal perceived knowledge, years of experience, impact of professional development on practice, and gender to determine if individual attributes explained the groupings of the principals. The researchers found that the individual attributes of principals were not statistically significant to distinguish the three leadership groupings (eclectic, instructional, and student centered) of principals. Goldring et al. examined contextual factors (percent of disadvantaged students, academic press, number of students, and average years of teaching) and individual attributes to determine if both measures explained the differences in the three groupings of principals. Ultimately, Goldring et al. concluded that school context was a better predictor of principal practice and may influence how much time throughout the day principals spend in different activities.

Instructional Leadership Practices

A consistent thread through the research on principal effectiveness was instructional leadership practices. Instructional leadership practices appeared in a variety of peer-reviewed national and international publications (Goldring et al., 2008; Gurley, Anast-May, O'Neal, & Dozier, 2016; Gurley, May, O'Neal, Lee, & Shores, 2015; Urick & Bowers, 2019; Wallace Foundation, 2013). Unfortunately, instructional leadership lacked a common agreed upon definition. The instructional leadership framework by Hallinger et al. (1983) formed the basis of this study. Hallinger et al. identified the three dimensions of instructional leadership framework as defining the school mission, managing the instructional program, and promoting a positive learning climate. Each dimension had coinciding job functions that were implemented through direct and indirect activities.

In one California school district, Hallinger and Murphy (1985) conducted a study to develop an instrument to assess instructional leadership behaviors of principals. Hallinger and Murphy used the three dimensions and 11 job functions of instructional leadership from the research of Hallinger et al. (1983) to develop the Principal Instructional Management Rating Scales (PIMRS) questionnaire. The PIMRS questionnaire included 71 questions. Respondents answered the questions using a 5-point Likert scale ranging from 1 (*almost never*) to 5 (*almost always*). In addition to the questionnaire, the researchers collected supplemental school-based documents to corroborate findings at the function level. The researchers stated, "Although there is some variance in the strength of the instructional management subscales, the Principal Instructional Management Rating Scales appears to measure reliably and validly the components of instructional management" (Hallinger & Murphy, 1985, p. 226). The PIMRS was administered to elementary principals, teachers at each of the principal's school, and district office supervisors.

Hallinger and Murphy (1985) asked four questions about the instructional management of principals. First, the researchers sought answers to determine what a principal group profile looked like. Next, the researchers sought to determine the most frequent job functions in which principals were engaged and what instructional management behaviors showed the greatest differences between principals. Finally, the researchers sought to determine what patterns of principal behaviors existed within the job functions.

Hallinger and Murphy (1985) found that the principal group had high performance levels throughout a majority of job functions. Only one job function rating was under a three (*sometimes*). All other ratings by teachers, principals, and principal supervisors averaged 3.1 and above. The most frequent job function in which principals were engaged was supervising and

evaluating the curriculum. The teacher mean ratings were 4.2, and principal mean ratings were 4.4. Hallinger and Murphy found that principals supervised and evaluated instruction more frequently than research suggested. The researchers posited that the school district the principals were from had an increased focus on instructional management

Hallinger and Murphy (1985) noted several findings across the school district. One finding was principals were actively involved in instructional leadership throughout the district. Another finding was that, while the district appeared to be actively involved in instructional leadership, there were variations between schools with respect to principal policies, practices, and behaviors. However, Hallinger and Murphy found that principal scores were consistent across the subscales. For example, principals who scored near the top on one job function were likely to score higher in other job functions.

Gurley et al. (2016) examined the frequency of instructional leadership behaviors as measured through self-perceptions of principals compared to teacher observations of principals. Gurley et al. chose Hallinger and Murphy's (1985) PIMRS to use in the study. The PIMRS was designed to give a 360-degree perspective to principals regarding their instructional leadership practices. Principals completed a 50-item principal version of the PIMRS. Certified teachers completed a 22-item PIMRS. All 17 schools in this study were located in the same mid-sized, southeastern school district.

Gurley et al. (2016) found that the survey results for the teachers and principals generally matched, indicating that principal self-perception and teacher observation of principal instructional behaviors frequency rating were close to the same level. The researchers noted that the alignment between principals' self-perceptions and teachers' observations was unusual, in that, typically, the principal's self-perceptions were rated higher than the teacher's perceptions.

Gurley et al. concluded that, in a majority of the sample schools (53%), perception regarding the frequency of instructional leadership behaviors was well matched. The researchers posited that a third of the principals were within the first four years of service and may have spent more time in instructional leadership skills development.

In another study, Gurley et al. (2015) used the PIMRS to examine principal instructional leadership perceptions of principals who had attended an assistant principal academy and who had recently matriculated to the principal position. Principals answered a 50-item principal form, and certified teachers answered a 22-item shortened teacher form. All study participants were from a southeastern school district in the United States.

Gurley et al. (2015) reported that the internal consistency reliability estimates for the principal form were moderate to high for each dimension and function scores. The average mean scores of the PIMRS teacher shortened form ranged between 4.55 and 4.13. The mean scores for the 50-item principal form ranged between 4.67 and 4.20. The researchers reported no significant differences between principal mean scores and mean scores from teachers within each principal's school, when paired *t*-tests were calculated. Of particular note, the authors included two additional data comparisons. The first comparison was an ad hoc principal survey that included 22 items. The mean and standard deviations of the ad hoc survey varied from the 50-item principal survey. The three-dimension scores were consistent, although the individual job function scores varied dramatically. A second data set included additional principals from a neighboring school district. Researchers used the results of the new population to compare the 20-item ad hoc survey and the 50-item survey. Gurley et al. reported that principal and teacher mean scores were more similar in managing the instructional program and developing the school

learning climate; however, the researchers detected a wider range between mean scores in defining the school mission dimension.

Urick and Bowers (2019) conducted an exploratory multilevel factor analysis of teacher and principal perceptions of instructional leadership using the 2008 Teaching and Learning International Survey (TALIS). The study using the 2008 TALIS survey included principals and teachers from 22 participating countries. The researchers sought to understand teacher and principal individual and shared perception of instructional leadership at the school level. The researchers examined the factor structure of teacher and principal perceptions of instructional leadership, the school level within and between factor relationships of teachers and principals, and the relationship of principal and teacher perceptions of instructional leadership.

A confirmatory factor analysis was conducted on the principal perception of instructional leadership. The three instructional leadership factors of communicating school goals, promoting professional development, and supervision of instruction had moderate to strong relationships. Once the degree of relationship between the three instructional leadership factors was established, teacher perception of instructional leadership was evaluated. An exploratory factor analysis of teacher perception yielded one single factor; therefore, Urick and Bowers (2019) suggested that teachers viewed the principal's instructional leadership work as a single task.

Urick and Bowers (2019) noted three primary findings. First, principals viewed instructional leadership as consisting of three factors, including setting goals and vision, professional development, and supervision. Second, at the individual and school level, teachers viewed the principals' instructional leadership role as one encompassing task, not as having separate functions, as principals viewed instructional leadership. Third, at the school level,

principal and teacher perceptions of instructional leadership should not be aggregated, because the school-level factors were based on perception and not factors of instructional leadership.

Principal Instructional Leadership Practices and Student Achievement

The purpose of this study was to examine the relationship of principal instructional leadership behaviors and school grades in the state of Florida. The 2018-2019 Florida school grading model relied on multiple forms of student achievement (Florida Department of Education, 2019). Understanding the effect of instructional leadership practices on student achievement is germane to this research study. Identifying instructional leadership practices that positively affected student achievement may assist principals in positively affecting school grades.

Robinson, Lloyd, and Rowe (2008) conducted a dual meta-analysis concerning the impact of leadership types on student outcomes. The researchers sought answers to the relative impact of instructional leadership and transformational leadership and then to the impact of different leadership practices on student outcomes. Robinson et al. identified 27 published studies that focused on the relationship between leadership and student outcomes.

In the first meta-analysis, Robinson et al. (2008) used 22 of the 27 studies and compared the effects of transformational leadership, instructional leadership, and a generic category of leadership titled *other types of leadership*. After categorizing the studies into the three different types of leadership styles, the researchers examined the impact of the leadership styles. Robinson et al. found the impact of instructional leadership was greater than the impact of transformational leadership.

In the second meta-analysis, Robinson et al. (2008) used 12 of the 27 studies. Within the second meta-analysis, 199 survey items were compared inductively to derive the effects of

leadership practices on student outcomes. The researchers found five sets of leadership practices: establishing goals and expectations; resourcing strategically; planning, coordinating, and evaluating teaching and the curriculum; promoting and participating in teacher learning and development; and ensuring an orderly and supportive environment. Within the five sets of leadership practices, Robinson et al. found establishing goals and expectations, ensuring an orderly and supportive environment, and planning and evaluating teaching and the curriculum intersected with the instructional leadership framework of Hallinger and Heck (1998).

Robinson et al. (2008) noted three conclusions. First, Robinson et al. concluded that instructional leadership had the largest effect size on student outcomes as compared to the transformational leadership category, as well as the other leadership category. Although the authors cautioned that this finding only showed the frequency of instructional leadership practices. Second, the authors asserted that, of the five leadership dimensions identified in their research, promoting and participating in teacher learning and development, had the greatest effect size, although goal setting and planning, coordinating, and evaluating teaching and the curriculum demonstrated a moderate effect size. The authors cautioned that there needed to be thoughtful use of the leadership dimensions and a clear understanding of the underlying attributes of each dimension. Robinson et al. further concluded, "A school's leadership is likely to have more positive impacts on student achievement and well-being when it is able to focus on the quality of learning, teaching, and teacher learning" (p. 668).

Hallinger and Heck (1998) reviewed research conducted between 1980 and 1995 that examined the relationship between principal leadership and student achievement. Hallinger and Heck selected the studies according to three criteria: first, the purpose of the study needed to examine the school principal's belief and leadership behavior; second, the study needed to

include a school performance measure as a dependent variable; and third, the included studies needed to represent national and international perspectives on school improvement and the impact of principals.

Hallinger and Heck (1998) used non-experimental research methods to classify empirical studies into different effect models: (a) direct-effects, (b) direct-effects with antecedent-effects, (c) mediated-effects, (d) mediated-effects with antecedent-effects, (e) reciprocal-effects, and (f) reciprocal-effects with antecedent-effects models. Hallinger and Heck concluded that both the simple and complex direct-effects models "have limited utility for investigating the effects of principal leadership" (p.166). The researchers found that both the simple and complex mediated-effects models suggested school leaders used indirect paths to affect school outcomes. Hallinger and Heck posited, that mediated effects offered a consistent means through which principals influenced school outcomes. The reciprocal-effects model proposed that relationships between the school leader and the school's environment were interactive. Hallinger and Heck stated, "Principals enact leadership in the school through a stream of interactions over a period of time" (p. 168).

Several conclusions were drawn from the review of 42 empirical studies. First, Hallinger and Heck (1998) concluded, "This review supports the belief that principals exercise a measurable, though indirect effect on school effectiveness and student achievement." (p. 186). Second, the conceptual and methodological tools used by the researchers improved during the time period of the study. The authors saw a change from simple to sophisticated models of analysis. Third, shaping the school's direction through vision, mission, and goals was the school leader's main pathway of influence.

May, Huff, and Goldring (2012) conducted a three-year longitudinal study that examined the relationship between principals' activities and student achievement. The population sample of the study included 39 elementary and middle school principals in a southeastern school district in the United States. The three-year longitudinal study began in the spring of 2005 and ended in the spring of 2007. The purpose of the study was twofold. First, May et al. explored changes in principal leadership activities and how those activities were related to the average achievement of students. Second, the researchers examined how the time spent on specific leadership activities related to the school's value-added model of student performance.

To answer the first research question, May et al. (2012) examined the principal activity data. Principal data in one of nine categories were captured in 15-minute intervals for six to 15 days in each year, and an activity profile was developed for each principal. The nine data categories were building operations, finance, parent relations, district functions, student affairs, personnel issues, planning and setting goals, instructional leadership, and principal's professional growth. The data were linked to individual student achievement data for the three years. The researchers used the data to gauge changes in performance of students within schools and groups of students within the district population. A three-level hierarchical linear modeling method was "employed to determine the degree to which principal activities were associated with student performance average across the three-year period, and also changes in student performance over time" (May et al., 2012, p. 423).

May et al. (2012) noted three overall conclusions from this study. First, these researchers determined a difference existed in principal activities from year to year. Second, May et al. suggested that principal activities were driven by school context (school demographic identifiers). The importance of reciprocal effects between school leaders and school context

aligned with the research findings from Hallinger and Heck (1998) and Goldring et al. (2008). A third finding by May et al. revealed no evidence "that changes in a principal's activities were associated with changes in a school's value-added to student achievement" (p. 433).

Louis, Dretzke, and Wahlstrom (2010) used national United States survey data to examine how leadership effects student achievement. The researchers sought answers to how teachers' collegial work and classroom practices were affected by shared leadership, development of trust, and instructional support. In addition, the researchers examined how instructional leadership, shared leadership, and trust affected student achievement.

The surveys used in this study came from a mixed-methods, 5-year project funded by the Wallace Foundation. The quantitative data used in the study came from two survey years, 2005 and 2008. The sampling design included 180 schools nested within 45 districts from nine randomly sampled states from the four quadrants of the United States of America. The survey data resulted in 106 participating schools. Student mathematical achievement data were taken from the state assessment databases used to calculate adequate yearly progress during NCLB (Louis et al., 2010).

The researchers used structural equation modeling (SEM) guided by regression interpretations to derive a path analysis. Louis et al. (2010) concluded that, while trust has been shown to be significant in other studies, instructional leadership and shared leadership results were found to be more important in this study. Louis et al. posited that instructional leadership and shared leadership are complementary leadership styles.

Sebastian, et al. (2019) examined the impact of instructional leadership and organizational management on student achievement. The researchers used a latent class analysis (LCA) approach to classify principal practice. The researchers used two driving research

questions. Sebastian et al. sought to identify classes of principals and then determine how the latent classes of principals were related to student achievement gains. Student achievement and demographic data for the study originated from Chicago public schools. The 2012-2013 student achievement data were used to control for prior achievement. Principal survey data were derived from the Chicago Consortium that administers population-based surveys to students, teachers, and principals. The particular data set was from the 2013-2014 survey administration. Sebastian et al. examined principal instructional leadership and organizational management through the 14 items on the principal survey. Principals rated themselves using an ordinal scale with 1 (*not effective*) and 4 (*very effective*). All survey items had a mean between 3.0 and 3.44. Sebastian et al. found that for both instructional leadership and organizational management, on average, principals rated themselves between the categories of effective and highly effective. The researchers concluded that the measures of instructional leadership and organizational management were distinct constructs.

Sebastian et al. (2019) identified four classes of principals. Class 1 principals, classified as very effective principals, rated themselves as very effective in all areas of organizational managements and instructional leadership. Class 2 principals, typical principals, were more likely to rate themselves at the very effective level for management items and were least likely to rate themselves as very effective for some instructional leadership items. Class 3 principals were categorized as less effective principals. Less effective principals rated themselves similarly across all items, rating close to an effective rating (3), although some items were averaging below 3. Class 4 principals were categorized as least effective principals with averages falling below 3 on most of the survey items.

Sebastian et al. (2019) found that instructional leadership and organizational management were highly related. The researchers posited that instructional leadership and organizational leadership may contain elements of each leadership style or that both styles belonged to a larger perspective of leadership effectiveness. Sebastian et al. stated that, within the classification of principals, principals who perceived themselves with high instructional leadership also rated themselves high in organizational management. The researchers posited that "when principals rate themselves as effective, they are reflecting on a range of activities that at a minimum include instructional and organizational activities" (p. 605).

Wu, Gao, and Shen (2019) examined principal leadership effects on student achievement using the United States 2015 Programme for International Student Assessment (PISA) data. The researchers investigated both the overall effect and moderating (contingent) effect concurrently. The researchers sought answers to two research questions. The first question examined the relationship between principal leadership self-ratings and student achievement in math, science, and reading. The second question examined principal leadership and school context on student achievement. The data were sourced through the 2015 PISA public use data and the 2015 PISA School, Teacher, and Student questionnaire. The resulting U.S. data included students and teachers nested in 177 schools. The PISA data were considered representative of schools nationwide.

Wu et al. (2019) used a two-level hierarchical linear modeling as the primary statistical method. The variance level of Model 1 served as a baseline for the successive conditional models 2-6. The Model 2 results indicated that, for all three subjects, student gender, age, and social economic status were statistically related. Model 3 indicated that school economic status and school type were statistically significant with student outcomes. Model 4 and Model 5

examined the relationships between principal leadership perceptions and student achievement. In Model 4, the overall principal leadership perception indicated a negative association in science, math, and reading. Model 5 results indicated instructional leadership was positively statistically significant and leadership for teacher development was negatively statistically significant. Model 6 examined moderating effects of school contextual variables on principal leadership for each subject. Principal leadership and school social economic status interactional effects indicated no statistical significance on any measure of student achievement. Wu et al. noted that, of the four dimensions of leadership, instructional leadership appeared to be the strongest positive principal leadership factor to improve student outcomes.

Wu et al. (2019) stated several findings from their research. First, instructional leadership was the only leadership dimension that was positively associated with student achievement after controlling for student and school background. According to Wu et al., this finding was consistent with current literature. Second, the overall self-rating of principal leadership was found to be negatively associated with student achievement in science, math, and reading after controlling for school background and student background variables. An additional finding included the overall self-rating of principal leadership and school size showed a positive association.

School-Based Accountability in Florida

In 1965, President Lyndon B. Johnson signed the Elementary and Secondary Education Act (ESEA) into law. ESEA provided federal funding for elementary and secondary education. The ESEA law emphasized equal access for student education and focused on closing achievement gaps. After President Johnson's educational initiative there was nearly a 20-year gap in federal educational reform until 1983. In 1983, during Ronald Regan's presidency, *A*

Nation at Risk: The Imperative for Educational Reform was published. The report emphatically decried that schools were failing, that the American education was failing.

Approximately twenty years after *A Nation at Risk: The Imperative for Educational Reform* was published; the next major federal educational reform was proposed by the Bush administration. In 2001, President George W. Bush signed the *No Child Left Behind* (NCLB) law, a reauthorization of the ESEA law. NCLB continued a noticeable era of increased accountability that included state academic standards, a state assessment system, and Adequate Yearly Progress (AYP) provisions. AYP examined the progress of all students, as well as subgroups of students. All students were to be proficient in reading and math by 2014.

In 2015, President Obama signed ESSA, which is the latest reauthorization of Elementary and Secondary Education Act. Accountability continued to be a major focus of public education, but now emphasis was focused at the state level. ESSA holds schools accountable for high standards of education of all of their students. ESSA requirements mandated that school grade results be transparent and easy to understand. Following ESSA requirements, each school in Florida received an annual report card. School grades are in an easily understandable metric that indicated the performance of a school. Florida school grades are represented in the traditional letter grades of A, B, C, D, or F. The Florida Department of Education (2019) stated that, "Parents and the general public can use the school grade and associated components to understand how well each school is serving its students" (p. 3).

The Florida 2018-19 School Grades Model

According to the Florida Department of Education, the Florida 2018-2019 school grades model was comprised of eleven components: four achievement components, two learning gains components, two lowest 25% learning gains components, one graduation component, one middle

school acceleration component, and one college and career acceleration component. Each component is worth 100 points.

The seven student success measures of the elementary school grade focus on achievement in English language arts, mathematics, and science, learning gains in English language arts and mathematics, as well as learning gains of the lowest 25% in English language arts and mathematics. School grades are calculated by summing each component and dividing by the total number of availed points. The resulting percentage of points determined the school grade. Florida 2018-2019 school grades were determined by the following scale: A = 62% or greater of points; B = 54% to 61% of points; C = 41% to 53% of points; D = 32% to 40% of points; F = 31% or less of points (Florida Department of Education, 2019).

Figure 1

The Florida 2018-19 School Grades Model

English Language Arts (FSA,FSAA)	Mathematics (FSA, FSAA, EOCs)	Science (NGSSS, FSAA, EOCs)	Social Studies (EOCs)	Graduation Rate	Acceleration Success
Achievement (0% to 100%)	Achievement (0% to 100%)	Achievement (0% to 100%)	Achievement (0% to 100%)	4-year Graduation Rate (0% to 100%)	High School (AP, IB, AICE, Dual Enrollment or Industry Certification) (0% to 100%)
Learning Gains (0% to 100%)	Learning Gains (0% to 100%)				Middle School (EOCs or Industry Certifications) (0% to 100%)
Learning Gains of the Lowest 25% (0% to 100%)	Learning Gains of the Lowest 25% (0% to 100%)				

Principals are under pressure to meet accountability expectations as designated in school grades. The competing demands and numerous responsibilities that make up the daily life of

principals limit their effectiveness. One of the many challenges faced by principals is how to allocate limited time and attention across varied responsibilities. Strategically using key instructional leadership practices to maximize impact on student achievement and positively affect the school grade will assist principals in the operation of a school campus.

Summary

Principal leadership, principal practice, and student outcomes are frequently studied topics. Using school effectiveness factors, Hallinger et al. (1983) developed an instructional leadership framework. Hallinger et al.'s framework was developed around three leadership dimensions: defining the mission, managing the instructional program, and promoting a positive school learning climate. Other leadership research by Day et al. (2010), Leithwood et al. (2008), Goldring et al. (2008), Graczewski et al. (2009), and the Wallace Foundation (2013) also investigated principal leadership. Many of the researchers identified dimensions of leadership that overlapped with Hallinger et al.'s framework.

Hallinger and Murphy (1985) continued their instructional leadership research and developed an instrument that assessed principal instructional leadership behaviors. The instructional leadership assessment tool was titled the PIMRS. Through the PIMRS tool, the principal received a 360-degree view of their instructional leadership practices. The PIMRS examined teacher perception, principal self-perception, and district supervisor perception. The three dimensions of instructional leadership were refined into 11 essential job functions, which were reflected in the teacher, principal, and district-level supervisor surveys. Gurley et al. (2015), Gurley et al. (2016) and Hallinger and Murphy examined different sample principal populations to determine if principal behavior varied significantly in different contexts.

As educational accountability began to increase, especially within the last few presidential tenures, research on principal behaviors and student outcomes became more prevalent. Louis et al. (2010), May et al. (2012), Sebastian et al. (2019), Urick and Bowers (2019), and Wu et al. (2020) have completed studies examining principal instructional leadership and student outcomes. Each study indicated a positive influence of instructional leadership on student achievement. Chapter 3 will contain a discussion of the methodology that will be used to research this study's questions.

III. METHODOLOGY

This study was conducted to evaluate the relationship between principals' perception of school-based leadership practices and school performance within a state-adopted, school-based grading system. Chapter III contains the formal reporting of the essential elements associated with the study's research design and methodology. The study participant population was defined as 841 elementary building-level school administrators employed in one state located in the southeastern region of the United States. A response rate of at least 50% was sought at the outset of the study. Two research questions and hypotheses were stated to address the study's topic and research problem. Descriptive, inferential, and associative/predictive statistical techniques were used to address the study's preliminary analyses and the two research questions and hypotheses.

Description of Methodology

The study was broadly quantitative and non-experimental by definition and survey research using a specific methodological approach (Edmonds & Kennedy, 2017). Lichtman (2013) pointed out that the primary benefits of adopting a quantitative research orientation included researcher detachment in the research process and the potential for generalization of study findings. In support of survey research methodology, Denscombe (2010) noted that the selection of a survey research methodological approach offers the benefits of flexibility, generalizability, and the potential to generate a considerable amount of data on the topic or the construct in question. Additionally, the self-reporting method of surveying allows the researcher to obtain valuable insight into the thoughts and feelings of individuals that may not otherwise be obtained through direct observation (Adams & Lawrence, 2019).

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Sample/Sample Selection

The study's participant sample was considered non-probability and convenient/purposive in nature (Fraenkel et al, 2019). The study's sample was delimited to elementary school principals employed and practicing within one state located in the southeastern region of the United States. The total population of potential study participants was 841. To generalize findings, a population sample of at least 50% was anticipated.

The participant population was obtained through a data request to the Bureau of PK-20 Educational Reporting and Accessibility (PERA). The data request sought a list of school administrators, school names, and administrator email addresses for the school year 2018-2019. PERA used 2018-2019 Survey 2 data to construct the requested data file. A second data file list of 2020-2021 elementary principals, school name, school district, and school email addresses was requested from PERA. The list of 2020-2021 elementary principals was compared to the 2018-2019 list of elementary principals. Elementary schools that experienced a principal change between the 2018-2019 and 2020-2021 academic years were removed from the 2018-2019 list.

The resulting data file included demographic information comprised of school district designation number, school district name, school designation number, school name, school type description, grade combination, staff email addresses, first and last names of administrators, and job title. The data were filtered in the following succession: job title (principal), school type (elementary) and grade combination (PK-5 and K-5). The resulting data file was next compared to a public use list of 2019 school grades from the Florida Department of Education. The elementary schools were matched to 2019 school grades. Elementary schools without a designated grade of A - F were removed from the list. The resulting file included a data set of

841 elementary principals from elementary schools with an email address and grade designations of A - F in the state of Florida.

Statistical Power Analysis: Sample Size Parameters

Statistical analysis was conducted prior to the survey. Statistical power analysis using the G*Power software (3.1.9.2, Universität Düsseldorf, Germany) was conducted for sample size estimates for statistical significance testing purposes. The study's statistical power analysis was delimited to large and medium anticipated effects, a power $(1 - \beta)$ index of .80, and a probability level of .05.

In research question one, the simple linear regression statistical technique was used for statistical significance testing purposes in the predictive modeling process. An anticipated medium effect ($f^2 = .15$) would require 55 participants and an anticipated large effect ($f^2 = .35$) would require 25 study participants in order to detect a statistically significant finding in the analysis. In research question two, a multiple linear regression statistical technique involving 12 independent variables was used for statistical significance testing purposes in the predictive modeling process. An anticipated medium effect ($f^2 = .15$) would require 127 participants and an anticipated large effect ($f^2 = .35$) would require 61 study participants to detect a statistically significant finding in the analysis.

Instrumentation

A Likert-type research instrument consisting of 12 survey items was used for study purposes in operationalizing the independent variable of leadership practices. The Likert scale consisted of four points (4 - *very often*, 3 - *often,* 2 - *sometimes*, and 1 - *never or rarely*). The use of a 4-point Likert scale in the study met the threshold value for evaluative and internal reliability purposes in the surveying process established by Diamantopoulos et al. (2012).

The 12 leadership practices identified for the survey originated in the 2017-18 National Teacher and Principal Questionnaire that was recently released to public domain. The leadership practices questions were from a two-part rotating module of the Principal Questionnaire that sought information about school leadership and resources. The original purpose of the questionnaire section was designed to easily make international comparisons to principals in other countries. Only the first set of 12 questions regarding leadership was used in the study.

Study Procedures

The list of elementary principal email addresses was uploaded to SoGoSurvey, a secure online survey tool. The elementary principals identified as potential participants were emailed an invitation to complete a leadership survey. The email invitation contained a brief description of the research study, a request for voluntary participation in the study, and a link to an online survey. Once the survey was distributed via email, a second follow-up email was scheduled for one week later to continue to obtain as many responses as possible. Any principal requesting to be removed from the invitation list was immediately removed. After three weeks, the survey was closed, and the data were downloaded to be analyzed in the 27th version of IBM's Statistical Package for the Social Sciences (SPSS).

Data Analysis

Preliminary Analyses

Preliminary analyses were conducted prior to addressing the analysis of finding related to research questions and hypotheses posed in the study. Analysis included the evaluations of survey response rate, key participant demographic information, missing survey data, and the internal consistency (reliability) of participant response. The initial descriptive and inferential statistical analyses were also addressed in the preliminary analyses of the study's data set.

The study's extent of missing data was analyzed using descriptive and inferential statistical techniques. Frequencies (*n*) and percentages (%) represented the primary descriptive statistical methods of analysis and interpretation. A value of 5% or less was established as the threshold for missing data to be interpreted as inconsequential for subsequent analyses of preliminary data and data associated with the two research questions (Shafer & Graham, 2002). The extent of person-level (demographic identifying information) missing data was evaluated using the threshold parameters offered by Newman (2014).

The internal consistency or reliability of participant to the survey items was addressed through the application of Cronbach's alpha *(α)* test statistic. The statistical significance of α was assessed through the *F*-Test. The value of $p < .05$ was considered statistically significant. The conventions of Cronbach's alpha interpretation espoused by George and Mallery (2018) and Field (2018) were adopted for study purposes.

Essential demographic information for the study was assessed using descriptive statistical techniques. Frequency counts (*n*), and percentages (%) represented the primary methods of descriptive analysis used to illustrate the demographic identifying data of the study. Initial study findings were addressed through descriptive and inferential statistical analyses. Mean scores, standard deviations, and effect size measures were used for comparative and illustrative purposes. The one sample *t* test statistical technique represented the inferential statistical technique used to assess the statistical significance of finding in the study's initial, foundational analyses.

Data Analysis by Research Question and Hypothesis

The threshold value for statistical significance was established at $p \leq .05$. The magnitude of effect (effect size) was assessed using respective r^2 values. Sawilowsky's (2009) conventions

of interpretation (small, medium, large, very large, and huge) represented the guideline for the qualitative interpretation of numeric effect size values yielded in the two research questions of the study.

Research questions one and two were associative and predictive in nature. In research question one, predictive modeling involved one independent predictor variable and one dependent variable. In research question two, multiple independent predictor variables were utilized with one dependent variable. For associative purposes, the Pearson product-moment correlation coefficient (r) was used to assess the mathematical relationships of respective independent and dependent variables featured in both research questions. Mathematical relationships manifesting p-values of .05 ($p \leq .05$) or less were considered statistically significant. For analysis purposes school grades were converted from letter grades A – F to a numerical equivalent (A = 5, B = 4, C = 3, D = 2, F = 1).

The simple linear regression statistical technique was utilized to assess the predictive abilities of the independent variable of overall leadership practices for the dependent variable of school grade in the first research question. The multiple linear regression statistical technique was utilized to assess the predictive abilities of the 12 leadership practices (independent variables) in predicting the dependent variable of school grade in research question two.

Predictive model fitness was assessed in research questions one and two through ANOVA Table F values. ANOVA F values of $p \leq .05$ were indicative of predictive model fitness and viability. The respective r^2 values represented the basis for the evaluation of the associative/predictive effect both at the model level and for independent predictor variables. The statistical significance of predictive effect was interpreted through the respective slope (t) values of independent predictor variables. All major assumptions associated with predictive modeling

using linear regression analyses were assessed through both visual representation (linearity and homoscedasticity) and statistical means (independence of error, normality of residuals, multicollinearity, and significance outliers). The analysis and reporting of study findings were conducted using the 27th version of IBM's Statistical Package for the Social Sciences (SPSS).

Summary

The study was broadly quantitative and non-experimental by definition and survey research by specific methodological approach. Preliminary analyses of the study's data set included descriptive, inferential, and associative/predictive statistical techniques. Simple linear regression and multiple linear regressions were used to analyze research questions one and two. Research question one utilized a simple linear regression to assess the predictive variable of the overall leadership practices for the school grade. Multiple linear regressions were utilized to analyze the associations of the 12 leadership practices to predict school grade in research question two. The results of the analyses are presented in chapter four.

IV. RESULTS

Chapter IV contains the reporting of findings achieved in the study. A non-experimental, quantitative research design was utilized to address the study's topic. A correlational/predictive research methodology was employed to analyze participant perceptions regarding predefined leadership practices and their relationship with school grades. The study participants were exclusively comprised of educational leaders from elementary schools located in one state in the southeast region of the United States. Two research questions and hypotheses were posed to address the study's research problem. The analysis of study data was conducted using the 27th version of IMB Statistical Package for the Social Sciences (SPSS).

Preliminary Findings

Demographic Identifiers

Frequencies and percentages were calculated for the demographic identifier variables of gender, educational degree, age, and years of experience. The most frequently observed category of gender was female ($n = 46$, 73%). The most frequently observed category of educational degree was master's degree ($n = 37$, 59%). The most frequently observed category of age was over 50 ($n = 36$, 57%), and the most frequently observed category of years of experience was 5 to 10 Years ($n = 23$, 37%).

Table 1 contains a summary of the descriptive statistics associated with the study's four demographic identifier variables.

Table 1

Descriptive Statistics: Demographic Identifier Variables

Category	*n*	%	Cumulative %
Gender			
Female	46	73.02	73.02
Male	17	26.98	100.00
Missing	0	0.00	100.00
Degree			
Master's Degree	37	58.73	58.73
Beyond Master's Degree	26	41.27	100.00
Missing	0	0.00	100.00
Age			
50 and under	27	42.86	42.86
Over 50	36	57.14	100.00
Missing	0	0.00	100.00
Years of Experience			
4 Years or less	19	30.16	30.16
5 to 10 Years	23	36.51	66.67
11 Years or more	21	33.33	100.00
Missing	0	0.00	100.00

Missing Data

The study's extent of missing data was evaluated using descriptive statistical techniques. The extent of missing data within the study's dependent measures was minimal at 0.53% ($n = 4$). The person-level data (demographic identifying variables) were 100% intact. In light of the minimal, inconsequential extent of missing data, consideration of imputation procedures was not afforded (Shafer & Graham, 2002).

Internal Reliability

The Cronbach's alpha (α) statistical technique was used to assess the internal reliability of study participant response across the 12 survey items associated with the construct of

leadership practices. The internal reliability level was $\alpha = .81$. According to George and Mallery (2018), the internal reliability of the study's sample of participants was considered good to very good.

Table 2 contains a summary of finding for the results of the internal reliability analysis.

Table 2

Internal Reliability (α): Leadership Practices

Scale	No. of Items	α	Lower Bound	Upper Bound
Leadership Practices	12	0.81	0.74	0.87

Note. The lower and upper bounds of Cronbach's α were calculated using a 95% confidence interval.

Descriptive Findings: Leadership Practices

Preliminary descriptive analyses were conducted for study participant responses to survey items associated with the 12 leadership practices identified for study purposes. Table 3 contains a summary of findings for the preliminary descriptive analyses associated with study participant responses within the 12 leadership practices.

Table 3

D*escriptive Statistics: 12 Leadership Practices*

Leadership Practice	*M*	*SD*	*n*	SE_M	Min	Max	Skewness
I collaborate with teachers to solve classroom discipline	3.35	0.83	63	0.10	2.00	4.00	-0.72
I observed instruction in the classroom	3.92	0.27	63	0.03	3.00	4.00	-3.11
I provided feedback to teachers based on my observations	3.73	0.48	63	0.06	2.00	4.00	-1.46
I took actions to support cooperation among teachers to develop new teaching practices	3.52	0.62	63	0.08	2.00	4.00	-0.92
I took actions to ensure that teachers take responsibility for improving their teaching practices	3.54	0.56	63	0.07	2.00	4.00	-0.70
I took action to ensure that teachers feel responsible for their students' learning outcomes	3.67	0.51	63	0.06	2.00	4.00	-1.07
I provided parents or guardians with information on the school and student performance	3.35	0.58	62	0.07	2.00	4.00	-0.20
I reviewed school administrative procedures and reports	3.41	0.66	63	0.08	2.00	4.00	-0.68
I resolved problems with the lesson timetable in this school	3.10	0.86	60	0.11	1.00	4.00	-0.52
I collaborated with principals from other schools on challenging work tasks	3.10	0.80	63	0.10	1.00	4.00	-0.36
I used student results to develop the school's education goals	3.90	0.30	63	0.04	3.00	4.00	-2.76
I worked on a professional development plan for this school	3.44	0.62	63	0.08	2.00	4.00	-0.62

Inferential analyses using the one sample *t* test were conducted to assess the statistical significance of study participant response within each of the 12 leadership practices. The response effect for the 12 leadership practices was evaluated using the Cohen's *d* statistical technique. The leadership practice reflecting the greatest degree of response effect was observation of class instruction ($d = 5.21$). The least degree of response effect was observed within the leadership practice of resolved problems for lesson timetable ($d = .70$).

Table 4 contains a summary of response effects for the 12 leadership practices identified for study purposes.

Table 4

Response Effect: 12 Elements of Leadership Practice

Leadership Practice	*t*	*d*
I collaborate with teachers to solve classroom discipline	8.16***	1.03[c]
I observed instruction in the classroom	41.38***	5.21[a]
I provided feedback to teachers based on my observations	20.25***	2.55[a]
I took actions to support cooperation among teachers to develop new teaching practices	13.14***	1.66[b]
I took actions to ensure that teachers take responsibility for improving their teaching practices	14.66***	1.85[b]
I took action to ensure that teachers feel responsible for their students' learning outcomes	18.23***	2.30[a]
I provided parents or guardians with information on the school and student performance	11.70***	1.49[b]
I reviewed school administrative procedures and reports	10.92***	1.38[b]
I resolved problems with the lesson timetable in this school	5.42***	.70
I collaborated with principals from other schools on challenging work tasks	5.92***	.75
I used student results to develop the school's education goals	37.68***	4.75[a]
I worked on a professional development plan for this school	12.15***	1.53[b]

***$p < .001$ [a] Huge Effect ($d \geq 2.00$) [b] Very Large Effect (($d \geq 1.20$) [c] Large Effect ($d \geq .80$)

Disaggregating School Grade by Demographic Grouping Data

The dependent variable of school grade was disaggregated by demographic identifier variables for comparative and illustrative purposes. The following represents the disaggregated finding for school grade by respective demographic identifier variable.

Table 5

Disaggregation of School Grade by Gender

Variable	*M*	*SD*	*n*	SE_M	Min	Max	Skewness	Kurtosis
School Grade								
Female	2.91	0.94	46	0.14	1.00	4.00	-0.15	-1.24
Male	3.12	0.78	17	0.19	2.00	4.00	-0.20	-1.24

School Grade: Educational Degree

For study participants possessing a master's degree, the observations of school grade had an average of 2.86 (*SD* = 0.82, SE_M = 0.14, Min = 1.00, Max = 4.00, Skewness = -0.05, Kurtosis = -0.89). For study participants possessing a degree beyond master's degree (Specialist or Doctorate), the observations of School Grade had an average of 3.12 (*SD* = 0.99, SE_M = 0.19, Min = 1.00, Max = 4.00, Skewness = -0.48, Kurtosis = -1.27).

Table 6 contains a summary of finding for the disaggregation of school grade by the variable of educational degree.

Table 6

Disaggregation of School Grade by Educational Degree

Variable	*M*	*SD*	*n*	SE_M	Min	Max	Skewness	Kurtosis
School Grade								
Master's Degree	2.86	0.82	37	0.14	1.00	4.00	-0.05	-0.89
Beyond Master's Degree	3.12	0.99	26	0.19	1.00	4.00	-0.48	-1.27

School Grade: Age Grouping

For 50 years of age and under, the observations of school grade had an average of 2.93 (*SD* = 0.92, SE_M = 0.18, Min = 2.00, Max = 4.00, Skewness = 0.15, Kurtosis = -1.75). For study participants over 50 years of age, the observations of school grade had an average of 3.00 (*SD* = 0.89, SE_M = 0.15, Min = 1.00, Max = 4.00, Skewness = -0.49, Kurtosis = -0.61).

Table 7 contains a summary of finding for the disaggregation of school grade by the variable of age.

Table 7

Disaggregation of School Grade by Age

Variable	*M*	*SD*	*n*	SE_M	Min	Max	Skewness	Kurtosis
School Grade								
50 and under	2.93	0.92	27	0.18	2.00	4.00	0.15	-1.75
Over 50	3.00	0.89	36	0.15	1.00	4.00	-0.49	-0.61

School Grade: Years of Experience

For the years of experience category of 4 years or less, the observations of school grade had an average of 2.79 (SD = 0.79, SE_M = 0.18, Min = 2.00, Max = 4.00, Skewness = 0.38, Kurtosis = -1.21). For the category of 5 to 10 years of experience, the observations of school grade had an average of 2.78 (SD = 1.00, SE_M = 0.21, Min = 1.00, Max = 4.00, Skewness = -0.12, Kurtosis = -1.15). For the category of 11 years or more of experience, the observations of school grade had an average of 3.33 (SD = 0.80, SE_M = 0.17, Min = 2.00, Max = 4.00, Skewness = -0.66, Kurtosis = -1.05).

Table 8 contains a summary of finding for the disaggregation of school grade by the variable of years of experience.

Table 8

Disaggregation of School Grade by Years of Experience

Variable	*M*	*SD*	*n*	SE_M	Min	Max	Skewness	Kurtosis
School Grade								
4 Years or less	2.79	0.79	19	0.18	2.00	4.00	0.38	-1.21
5 to 10 Years	2.78	1.00	23	0.21	1.00	4.00	-0.12	-1.15
11 Years or more	3.33	0.80	21	0.17	2.00	4.00	-0.66	-1.05

Findings by Research Question & Hypothesis

Two research questions and hypotheses were posed for study purposes. The threshold for statistically significance of finding was established at $p \leq .05$ at the outset of the study. The effect size conventions offered by Sawilowsky (2009) provided the quantitative parameters of interpretation for numeric values achieved in the analyses.

Research Question 1

Within the first research question, the researcher sought to determine the degree select leadership practices were associated with and predictive of school grades. A simple linear regression statistical technique was used to assess the degree to which the overall mean score for the variable overall leadership practices predicted study participant school grade. The results of the simple linear regression model were not manifested at a statistically significant level ($F_{(1,57)} = 1.95$, $p = .168$, $R^2 = 0.03$), indicating that the variable of overall leadership practices did not explain a statistically significant proportion of variation in the dependent variable of school grade.

Table 9 contains a summary of finding for the predictive model used in research question one.

Table 9

Leadership Practices Mean Predicting School Grade

Variable	*B*	*SE*	95% CI	β	*t*	*p*
(Intercept)	1.33	1.20	[-1.08, 3.74]	0.00	1.10	.28
Leadership Practices Mean	0.48	0.34	[-0.21, 1.16]	0.18	1.40	.17

Hypothesis

In light of the non-statistically significant finding in research question one, the hypothesis (H_1) was rejected.

Follow-up Analysis: Finding for Years of Experience (5 to 10 Years)

A follow-up analysis was conducted for the variable of overall leadership practices and the dependent variable of school grade by demographic identifier. One analysis manifested a statistically significant finding for the demographic identifier variable of 5 to 10 years category of experience. The results of the linear regression model used to predict school grade by overall leadership practices within the years of experience category of 5 to 10 years were statistically significant ($F_{(1,18)} = 4.68$, $p = .04$, $R^2 = 0.21$), indicating that approximately 21% of the variance in the dependent variable of school grade is explainable by the variable of overall leadership practices for study participants with 5 to 10 years of experience. Overall leadership practices significantly predicted the dependent variable of school grade ($B = 1.41$, $t_{(18)} = 2.16$, $p = .04$). The finding may be interpreted as, on average, a one-unit increase of the mean score of overall leadership practices predicts an increase in the value of school grade by 1.41 units.

Table 10 contains a summary of finding for the predictive model used in the follow-up analysis to research question one.

Table 10

Leadership Practices Predicting School Grade

Model	*B*	*SE*	95% CI	β	*t*	*p*
(Intercept)	-2.12	2.31	[-6.97, 2.73]	0.00	-0.92	.37
Leadership Practices	1.41	0.65	[0.04, 2.77]	0.45	2.16	.04

Research Question 2

Within the second research question, the researcher sought to identify which leadership practice represented the most robust overall correlate and predictor of school grades. A correlational analysis was conducted using the Pearson product-moment correlation coefficient to determine which of the 12 leadership practices was most associated with the dependent

variable of school grade. As a result, the leadership practice of observed classroom instruction represented the most robust and only statistically significant correlate with the dependent variable of school grade ($r = .25$; $p = .04$).

Table 11 contains a summary of finding for the correlational analysis using the 12 leadership practices and the dependent variable of school grade.

Table 11

Correlation Finding: Leadership Practices & School Grade

Leadership Practice	*n*	*r*
I collaborate with teachers to solve classroom discipline	63	.19
I observed instruction in the classroom	63	.25*
I provided feedback to teachers based on my observations	63	-.13
I took actions to support cooperation among teachers to develop new teaching practices	63	.15
I took actions to ensure that teachers take responsibility for improving their teaching practices	63	.13
I took action to ensure that teachers feel responsible for their students' learning outcomes	63	.08
I provided parents or guardians with information on the school and student performance	62	.20
I reviewed school administrative procedures and reports	63	.21
I resolved problems with the lesson timetable in this school	60	.15
I collaborated with principals from other schools on challenging work tasks	63	.09
I used student results to develop the school's education goals	63	-.06
I worked on a professional development plan for this school	63	-.07

*$p = .04$

Predictive analysis was conducted using the multiple linear regression statistical technique in an effort to determine which of the 12 leadership practices represented the most

robust, statistically significant predictor of the dependent variable of school grade. As a result, the leadership practice of observation of classroom instruction represented the most robust, statistically significant predictor of the dependent variable of school grade ($\beta = 1.16$, $t_{(18)} = 2.14$, $p = .04$; $R^2 = .14$), indicating that approximately 14% of the variance in the dependent variable of school grade is explainable by the leadership practice of observation of classroom instruction. The finding may be interpreted as, on average, a one-unit increase of the mean sore of the leadership practice observation of classroom instruction predicts an increase in the value of school grade by 1.16 units.

Table 12 contains a summary of finding for the predictive model used to address research question two.

Table 12

Predicting School Grade by Leadership Practices

Model	*β*	*SE*	*Standardized β*
Intercept	1.10	2.46	0.00
I collaborate with teachers to solve classroom discipline	0.04	0.18	0.04
I observed instruction in the classroom	1.16	0.54	0.32*
I provided feedback to teachers based on my observations	-0.55	0.28	-0.29
I took actions to support cooperation among teachers to develop new teaching practices	0.31	0.24	0.21
I took actions to ensure that teachers take responsibility for improving their teaching practices	-0.02	0.32	-0.01
I took action to ensure that teachers feel responsible for their students' learning outcomes	0.16	0.37	0.08
I provided parents or guardians with information on the school and student performance	0.44	0.25	0.28
I reviewed school administrative procedures and reports	0.15	0.25	0.11
I resolved problems with the lesson timetable in this school	-0.03	0.19	-0.03
I collaborated with principals from other schools on challenging work tasks	-0.05	0.19	-0.04
I used student results to develop the school's education goals	-0.19	0.21	-0.13
I worked on a professional development plan for this school	-0.88	0.52	-0.27

*p = .04

Hypothesis

The hypothesis (H_2) was rejected for 11 of the 12 leadership practices identified in research question two. One leadership practice indicated a statistically significant finding. The hypothesis (H_2) was accepted for the leadership practice of observation of classroom instruction.

Summary

The null hypothesis was accepted for the variable overall leadership practices for the dependent variable of elementary school grades. A follow-up analysis of demographic identifier variables found that years of experience, specifically 5-10 years, manifested a statistically significant finding when used to predict school grades. The leadership practice of observation of classroom instruction was the most robust practice that manifested statistical significance. A discussion of the results of the study is included in chapter five.

V. DISCUSSION

In the state of Florida, ESSA has continued an era of school-based grading systems reliant upon statewide assessment scores, graduation rates, and acceleration measures. As a result, school-level administration must continuously increase or maintain high levels of student achievement. Principals of elementary (grades PK-5 or K-5) schools must maintain high levels of academic achievement in English language arts, mathematics, and science, as well as learning gains in English language arts and mathematics.

The school grade for elementary schools was composed of seven components. The first three of the seven components included the percentage of students who achieved a passing score in English language arts, mathematics, and science. The remaining four components analyzed the percentage of students in English language arts and mathematics who achieved learning gains from prior year to current year and the percentage of students in the lowest 25% who achieved learning gains also from the prior year to current year. Identifying instructional leadership practices for principals that positively impact state-adopted school-based grading systems is a logical step in educational research.

The theoretical framework for this study was based on Hallinger et al's (1983) instructional leadership framework. Hallinger et al's framework examined instructional leadership in three dimensions. Hallinger et al. posited that the three dimensions of the instructional leadership framework were defining the school mission, managing the instructional

program, and promoting a positive learning climate. The instructional leadership framework provided a focus on school-based leadership actions within the three dimensions. For example, within the school mission dimension of instructional leadership, the elementary principal framed and communicated school-wide achievement goals. The principal used student achievement results to develop the school's educational goals. The principal communicated the goals and the progress on the goals to all stakeholders.

The second dimension, managing the instructional program, included principal actions of supervising and evaluating instruction, coordinating curriculum, and monitoring student progress. Within the second dimension, the elementary principal monitored the alignment between school goals and classroom practices. The monitoring of the alignment of school goals and classroom practices included observing instruction in the classroom, providing feedback to teachers based on observations, and ensuring teachers take ownership of student learning outcomes. Principal actions that ensured teachers take ownership of student learning outcomes included developing ways for teachers to improve their teaching skills or discover new teaching strategies. Principal actions also included resolving problems with the lesson timetable so that curriculum was aligned to high stakes achievement testing, and that formative and summative results informed curricular decisions.

Principal actions within the third dimension, promoting a positive school climate, included reviewing, and then communicating expectations through school policies and practices. The actions of principals included protecting instructional time, promoting professional development, maintaining high visibility, and collaborating with teachers to solve classroom discipline problems. These would ensure that curriculum could be delivered.

Discussion of Preliminary Analysis

This study was quantitative and non-experimental in design. Survey methodology was used to evaluate the relationship between principals' perception of school-based instructional leadership practices and school performance within a state-adopted, school-based grading system. The participant population was considered non-probability and convenient/purposive. For the purposes of this study, the elementary school level was delimited to schools with grades prekindergarten through fifth grade or kindergarten through fifth grade. Elementary schools fitting the delimited criteria that experienced a change in the principal between the school years 2018-2019 and 2020-2021 were removed from the list of participants. The participant population resulted in 841 elementary school-based administrators in the state of Florida. A 4-point Likert-type research instrument was used to survey the relationship of principal perception of 12 leadership practices.

The study collected the demographic identifiers of gender, educational degree, age, and years of experience. The most frequently observed identifier for gender was female, for age was over 50, for educational degree was a master's degree, and for years of experience was 5 to 10 years (Table 1). The 12 leadership practices were evaluated using the Cohen's *d* statistical technique (Table 4). Observation of class instruction ($d = 5.21$) reflected the greatest degree of response effect.

Discussion by Research Question

Research Question 1

The researcher sought to determine what degree were overall self-reported instructional leadership practices associated with and predictive of elementary school grades. To address the research question, a simple linear regression was used to evaluate the degree to which the overall

leadership practice variable predicted the study participant school grade. The overall leadership practices variable did not explain the variation of school grade to a statistically significant level. Therefore, the null hypothesis for the first research question was accepted.

This null hypothesis was accepted, because an aggregate score of the instructional leadership practices did not appear to effectively predict school grades. At first glance, this finding appears to parallel previous research on instructional leadership practices and student achievement. First, when analyzing the aggregate of instructional leadership, no correlation appeared. However, similar to this research, when other factors were investigated, correlations could be observed. For example, Wu et al. (2019) found that the overall principal leadership perception index negatively affected student achievement in science, math, and reading. However, after controlling for student and school background variables, instructional leadership was found to be positively statistically significant. Similarly in this research, controlling for 5-10 years' experience indicated a positive statistically significant relationship.

Follow-up Analysis to Research Question 1

The researcher conducted additional analyses, including an analysis on demographic identifiers. Variables examined included overall leadership practice and school grades by demographic identifiers. The linear regression indicated that approximately 21% of the variance in the dependent variable of school grade is explainable by the variable of overall leadership practices for study participants with 5 to 10 years of experience.

The statistically significant finding for study participants with 5 to 10 years of experience might suggest that there is an optimum time period of principal effectiveness using instructional leadership practices. Less than five years of experience may not provide principals with the experience needed to properly implement the instructional leadership practices. More than 10

years of experience may lead to declining result in effectiveness due to leadership burn out or principal turnover. DeMatthews et al. (2021) asserted that principal burnout is a national issue, and that principal turnover leads to decreased educational outcomes. In 2016-2017, the national average length of time a principal remained at a school was four years (Levin & Bradley, 2019). This might imply that, for effective use of instructional leadership practices, principals need strong, high-quality pre-service and retention professional development programs.

Research Question 2

The researcher examined 12 leadership practices to identify which practice was most associated with and predictive of elementary school grades. To address the research question, a correlational analysis was conducted. The Pearson product-moment correlation coefficient was used to determine that the leadership practice of observation of classroom instruction represented the most robust, statistically significant predictor of the dependent variable of school grade (β = 1.16, $t_{(18)} = 2.14$, $p = .04$; $R^2 = .14$). The results indicated that approximately 14% of the variance in the dependent variable of school grade is explainable by the leadership practice of observation of classroom instruction.

Though this research indicates that classroom observations can impact school performance as measured in school grades, several factors can influence its efficacy. First, much variation exists in how principals practice classroom observations. For example, Ing (2009) indicated that 70% of principals surveyed mainly focus on visibility as a purpose of the classroom observations. However, visibility alone is not sufficient to improve the instructional culture of the building. Ing asserted that, for classroom observations to be most effective, it needs to be paired with follow up, such as sending a note about what was observed in the classroom. Ing's research would indicate that, although classroom observations may be

practiced by principals, the lack of instructional focus of the classroom observation will impact its effectiveness. A strategy to improve the efficacy of classroom observation would be proper training of school-based leaders emphasizing the need for follow up with an instructional focus.

Another factor that can impact the efficacy of the classroom observations are time constraints on principals. The role of the building leader is diverse and demanding, as May et al. (2012) and Goldring et al. (2008) have observed. Principals must divide their time into several areas. These multiple competing priorities decreased the time principals can be in the classroom. For example, if a principal spends only 15 minutes observing in a classroom, then in a small school consisting of 54 teachers, the principal would spend 13.5 hours a week in observations. The time spent observing equates to just under two days of the five-day work week. Principals of larger schools with 100 or more teachers would spend at least 25 hours a week in observations. The time spent in observations compounds throughout the quarter, semester, and full year. A solution to the time constraint would be to reprioritize the principal's time by giving other responsibilities to school-based leaders, such as assistant principals or aspiring leaders, or share the classroom observation responsibility with the identified school-based leaders. Either avenue requires training in the new responsibilities.

Study Limitations

This study had several limitations inherent in the study design. First, the population was delimited to elementary principals in one state. Another limitation included the study participant population, which was limited to elementary principals who remained in leadership in the same school during school years 2018-2019 through 2020-2021. This study did not use a random sample population. The convenience sample limits generalization to the larger population.

Additional limitations included the low survey response rate. The survey response rate was 7.6% (n = 63). The anticipated survey response rate was 50%. According to Qualtrics, a company specializing in online surveys, a typical response rate ranged between 20-30% (Qualtrics, n.d.). A response rate of 10% is deemed quite low by Qualtrics.

A possible factor that may have resulted in the low response rates was SPAM filters. Ison (2017) noted that SPAM filters negatively impacted electronic response rates. Ison's study employed a two-step process. An initial email was sent notifying potential survey participants that they would receive an email with the link to an electronic survey. The second step was to send the email with the electronic link. Ison's research results indicated 28.8% of initial emails were blocked or filtered by automated SPAM filter software. Saleh and Bista (2017) also asserted that SPAM filters reduced survey response rates.

Another possible reason for a lower response rate than originally anticipated was the COVID-19 pandemic. Antipova (2021) contended that the novel Coronavirus pandemic was a black swan event. Events are identified as black swans because they meet three-point criteria. Criteria included an event that extended beyond typical expectations, an event that produced a significant impact, and a post-event explanation that is reasonable or predictable. Antipova asserted that "such events are large-scale shocks which can severely challenge economic activity, social cohesion and even political stability" (p.357). The impact of the pandemic has met these criteria. DeMatthews, et al. (2021) asserted that the COVID-19 pandemic intensified principal burnout. Managing increased demands associated with school closures and reopening, as well as social distancing protocols, propelled principals beyond their already heavy workloads, long hours, and stress, leaving no time for activities beyond their immediate school responsibilities.

Implications for Professional Practice

In 2018, the Organization for Economic Cooperation and Development (OECD) launched an international large-scale survey entitled the Teaching and Learning International Survey (TALIS). An international representative sample of teachers and principals from 49 education systems completed the TALIS 2018 survey. The TALIS survey included a section of survey questions nearly identical to the public domain survey questions used in this study. OECD (2019) clustered the survey questions in four domains. The cluster of direct instructional leadership activities included collaborating with teachers to solve classroom discipline problems, working on a professional development plan for the school, providing feedback based on principal observations, and observing instruction in the classroom. The cluster of indirect instructional leadership activities included taking action to ensure that teachers feel responsible for their students' learning outcomes, taking action to ensure that teachers take responsibility to improve their teaching skills, and taking action to support co-operation among teachers to develop new teaching practices. The administrative task cluster activities included reviewing school administrative procedures, reports, and resolving problems with the lesson timetable in the school. Systems leadership is the final cluster of principal activities. This cluster included providing parent guardians with information on the school, including student performance, as well as collaborating with principals from other schools on challenging work tasks. The TALIS 2018 survey results indicated that 41% of principals often or very often observed instruction in the classroom. Of the four direct instructional leadership activities, observation of classroom instruction indicated the lowest percentage of principal engagement. The four direct instructional leadership activities indicated lower principal engagement percentages than that of the three indirect instructional leadership activities. OECD indicated that principals allocated

16% of their time to curriculum and instructional concerns. Further, approximately half of principals reported having instructional leadership training prior to commencing their position as principal.

The results of this study indicated that time spent observing classroom instruction was the most robust predictors of school grades. Considering the findings of this study and indications from the TALIS 2018 survey about instructional leadership, principals may lack training on instructional leadership or the time to implement instructional leadership practices. Possible solutions to this deficiency could be training on instructional leadership practices, training on time management, or delegation of other administrative tasks so that more time could be allocated to instructional leadership practices. For schools with state-adopted, school-based grading systems, further exploration of instructional leadership is needed.

Recommendations for Future Research

This study indicated the most robust instructional leadership predictor of school grades is the observation of classroom instruction. Since the study participant population was convenient/purposive, the results cannot be considered generalizable to all elementary principals in the state of Florida. Further research with a random sample participant population would need to be completed. Florida principal data results from the 2017 National Teacher and Principal Survey or the TALIS 2018 may assist if data can be traced back to individual schools. School grade data could then be matched to the school information to identify the most robust instructional leadership practice predictor of school grades. The resulting information would be informative to the training of pre-service elementary principals and continued professional development for current elementary principals.

An additional recommendation for future research would be for a replication study at the middle school and high school level in the state of Florida. A replication study at the different school level may indicate similarities or differences of the most robust instructional leadership practices dependent upon school level. Implications would be informative for the training of pre-service principals and for the continued training for current principals.

A third recommendation for further research includes replication in other states. The Federal Department of Education mandates that states must develop an accountability system. Identifying states that also use a state-adopted, school-based grading system would expand the research on identifying instructional leadership practices as robust predictors of school grades.

Principals in the state of Florida are expected to abide by professional leadership standards as well as meet high performance standards exhibited through school grades. Elementary schools in the state of Florida are assigned school grades based on student achievement data. At the same time, Florida principal leadership standards espouse a need for principals to understand and implement student achievement, instructional leadership, organizational leadership, and professional ethical practices. Aligning the two goals makes sense. Further examination of instructional leadership is warranted.

The purpose of the current research study was to identify if the overall leadership practices variable or individual leadership practices variables were predictive of school grades. Observations of classroom instruction was the only variable that was statistically significant. The study contributes to the body of knowledge related to instructional leadership and school grades.

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Appendix A

12 Leadership Practices

Leadership Practice
I collaborate with teachers to solve classroom discipline
I observed instruction in the classroom
I provided feedback to teachers based on my observations
I took actions to support cooperation among teachers to develop new teaching practices
I took actions to ensure that teachers take responsibility for improving their teaching practices
I took action to ensure that teachers feel responsible for their students' learning outcomes
I provided parents or guardians with information on the school and student performance
I reviewed school administrative procedures and reports
I resolved problems with the lesson timetable in this school
I collaborated with principals from other schools on challenging work tasks
I used student results to develop the school's education goals
I worked on a professional development plan for this school

Appendix B

Online Instructional Leadership Practices Survey

PARTICIPANT INFORMATION
SOUTHEASTERN UNIVERSITY

Title: The Intersection of Selected School-based Leadership Practices and School Grades in the State of Florida.

Investigator(s):
Dr. Susan Stanley, Ed.D., Professor of Education, Southeastern University
Mrs. Wendelynn McPherson, Doctoral Candidate, Southeastern University

Note: This study has been approved by the Institutional Review Board at Southeastern University. You must be 18 years or older to participate.

Purpose: The purpose of this study is to examine selected leadership practices and the relationship to school grades in elementary schools.

What to Expect: This survey is administered online. Participation in this research involves completion of a survey with eighteen questions. The first part of the survey will ask for demographic data including years of service in current position, age, gender, and highest degree earned. The second part of the survey will ask you to indicate the response that best reflects how frequently you engaged in selected instructional leadership activities during the 2018-2019 school year. We ask that you answer all questions. However, you may skip any questions that you do not wish to answer. You will complete the survey once and completion should take about 10 minutes to complete. While in the survey continue to the next page by clicking the NEXT button at the bottom right of the page.

Risks: There are no risks associated with this project which are expected to be greater than those ordinarily encountered in daily life.

Benefits: There is no direct benefit to you for completing the survey. However, your answers will help add to the body of knowledge related to instructional leadership.

Compensation: You will receive no compensation for completing the survey,

Your Rights and Confidentiality: Your participation in this research is voluntary. There is no penalty for refusal to participate, and you are free to withdraw your consent and participation in this project at any time.

Confidentiality: The results of this survey are confidential. All study results will be aggregated and reported as group findings; therefore, no results, written reports, or articles will identify you personally or professionally.

Research records will be stored on a password protected computer in a locked office, and only researchers and individuals responsible for research oversight will have access to the records. Data will be destroyed five years after the study has been completed.

Should you desire to discuss your participation in the study and/or request information about the results of the study contact Wendelynn McPherson at wamcpherson@seu.edu

If you have questions about your rights as a research volunteer, you may contact the IRB Office IRB@seu.edu

If you choose to participate: By clicking YES, you are indicating that you freely and voluntarily agree to participate in this study and that you are at least 18 years of age. Feel free to print a copy of this consent page for your records before you begin the study by clicking below.

1. By taking this survey, I certify that I am 18 years of age or older and that I voluntarily consent to patriciate (select one option).
    Yes
    No

2. I was the principal of an elementary school during the 2018-2019 school year.
    Yes
    No (discontinue)

3. How many years have you been an elementary school principal? (Select one option)
    1-2
    3-4
    5-6
    7-8
    9-10
    10-11
    11-12
    12+

4. My age is (select one option)
    21-30
    31-40
    41-50
    51-60
    61-70
    71+

5. Gender (select one option)
    Female
    Male
    Other
    Prefer not to answer

6. What is the highest degree you have earned? (Select one option)

Doctorate
Specialist
Masters
Baccalaureate

Principal Leadership Practices Survey

Instructions: Please indicate how frequently you engaged in the following activities in each of the following statements. Please do not skip any items, as each item is important.

7. I collaborated with teachers to solve classroom discipline. (Select one option.)

Never or Rarely Sometimes Often Very Often

8. I observed instruction in the classroom. (Select one option.)

Never or Rarely Sometimes Often Very Often

9. I provided feedback to teachers based on my observations. (Select one option.)

Never or Rarely Sometimes Often Very Often

10. I took actions to support cooperation among teachers to develop new teaching practices. (Select one option.)

Never or Rarely Sometimes Often Very Often

11. I took actions to ensure that teachers take responsibility for improving their teaching skills. (Select one option.)

Never or Rarely Sometimes Often Very Often

12. I took action to ensure that teachers feel responsible for their students' learning outcomes. (Select one option.)

Never or Rarely Sometimes Often Very Often

13. I provided parents or guardians with information on the school and student performance. (Select one option.)

Never or Rarely Sometimes Often Very Often

14. I reviewed school administrative procedures and reports. 9) I resolved problems with the lesson timetable in this school. (Select one option.)

Never or Rarely Sometimes Often Very Often

15. I collaborated with principals from other schools on challenging work tasks. (Select one option.)

Never or Rarely Sometimes Often Very Often

16. I worked on a professional development plan for this school. (Select one option.)

Never or Rarely Sometimes Often Very Often

17. I used student results to develop the school's education goals. (Select one option.)

Never or Rarely Sometimes Often Very Often

18. Please add any additional comments that you would like to make in this space provided below.

Thank you for your participation. If you have additional questions about this survey, please email the researcher at wamcpherson@seu.edu

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Appendix C

Email Sent to Florida Elementary Principals

Dear Principal {{Last Name}}

My name is Wendelynn McPherson and currently I serve as the principal of Marathon High School in Monroe County. Prior to becoming a principal, I taught at the elementary level for eleven years, worked at the district level as a program specialist for six years, and now have been in school-based administration for eleven years. I am a doctoral candidate in organizational leadership at Southeastern University. My dissertation is focused on principal leadership practices and school grades in 2018-2019. I am writing to ask you to complete a brief electronic survey that should take you approximately 10 minutes. This survey has been approved by the Institutional Review Board at Southeastern University for dissemination and is completely voluntary. I thank you for your consideration of this request. Your participation is greatly appreciated. If you have any questions or concerns, please feel free to contact me or the Principal Investigator.

To take the survey, please click on the **Click Here** button below:

Click Here

If you have any questions, please feel free to contact me or the Principal Investigator, Dr. Susan Stanley.

Note: If you do not wish to receive further correspondence related to this research study, reply to this email and type "unsubscribe" in the subject line. Your email will be promptly removed from the mail list by the researcher.

We thank you for your time and participation.

Sincerely,

Wendy McPherson
Doctoral Candidate
Southeastern University
wamcpherson@seu.edu
(305) 849-1771

Dr. Susan Stanley
Professor of Education
Southeastern University
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